53808-2,2-u

COMMONWEALTH OF MASSACHUSETTS

DES

DIVISION OF EMPLOYMENT SECURITY

Michael S. Dukakis, Governor
Joseph D. Alviani, Secretary, Economic Affairs
Kristin S. Demong, Director, DES

AN OCCUPATIONAL PROFILE
OF
SELECTED MANUFACTURING INDUSTRIES
IN
MASSACHUSETTS
1983

Prepared By:
Massachusetts Division
of Employment Security
Research and Policy Dept.
Occupational Employment
Statistics Unit
Elliot A. Winer,
Program Manager
February, 1985

FOREWORD

The Occupational Employment Statistics Program is part of a Federal-State cooperative program involving State Employment Security Agencies (SESA's) as well as the Employment and Training Administration (ETA) and the Bureau of Labor Statistics (BLS). It was designed to meet the needs of economists, employment specialists, educators, counselors and others for current data on employment by occupations as well as projected data on employment by occupation and industry.

This publication is the nineteenth in a series on Current Occupational Profiles of Massachusetts Industries. The information is used in updating the industry-occupation matrix and as a data base for projecting future employment trends. Copies of all previous survey publications are available for reference in our Research Library.

Our sincere appreciation is extended to the many employers who participated in this survey, without whose support this labor market information would not be available. Acknowledgement for support is also made to the U. S. Department of Labor and in particular to the Bureau of Labor Statistics - both on national and regional levels - for their technical support. We also wish to recognize the contribution of the data processing department, the clerical unit, the reproduction unit and methods and procedures.

TABLE OF CONTENTS

Page

Foreword iii

Methodology 1

Scope of Survey 3

Manufacturing Employment
  Annual Averages 1980-1983 4
  Percentage Distribution 1980-1983 5

Food and Kindred Products (SIC 20) 6
  Meat Products (SIC 201) 11
  Dairy Products (SIC 202) 13
  Preserved Fruits and Vegetables (SIC 203) 15
  Bakery Products 17
  Beverages (SIC 208) 19

Textile Mill Products (SIC 22) 21
  Broadwoven Fabric Mills (SIC 223) 27
  Narrow Fabric Mills (SIC 224) 29
  Knitting Mills (SIC 225) 30
  Dyeing and Finishing Textiles (SIC 226) 33
  Yarn and Thread Mills (SIC 228) 35
  Miscellaneous Textile (SIC 229) 36

Apparel and Other Finished Products (SIC 23) 39
  Men's, Youths' and Boys' Suits and Coats (SIC 231) 44
  Women's, Misses' and Juniors' Outerwear (SIC 233) 46
  Women's and Childrens' Undergarments (SIC 234) 48
  Miscellaneous Apparel and Accessories (SIC 238) 49
  Miscellaneous Fabricated Textile Products (SIC 239) 51

Lumber and Wood Products except Furniture (SIC 24) 54
  Millwork, Plywood, and Structural Members (SIC 243) 58
  Miscellaneous Wood Products (SIC 249) 60

Furniture and Fixtures (SIC 25) 62
  Household Furniture (SIC 251) 63
  Partitions and Fixtures (SIC 254) 65

Paper and Allied Products (SIC 26) 67
  Paper Mills (SIC 262) 72
  Paperboard Containers and Boxes (SIC 265) 75

TABLE OF CONTENTS
(continued)

Page

Printing, Publishing, and Allied Industries (SIC 27)............ 78
  Newspapers (SIC 271).................................... 83
  Periodicals (SIC 272)................................... 85
  Books, Publishing and Printing (SIC 273)................ 86
  Commercial Printing (SIC 275)........................... 88
  Service Industries for the Printing Trade (SIC 279)..... 91

Chemicals and Allied Products (SIC 28)........................ 92
  Plastic Materials and Synthetics (SIC 282).............. 97
  Soap Cleaners and Toilet Goods (SIC 284)................ 99
  Paints and Allied Products (SIC 285).................... 101

Rubber and Miscellaneous Plastic Products (SIC 30)............ 102
  Miscellaneous Plastic Products (SIC 307)................ 106

Leather and Leather Products (SIC 31)......................... 108
  Leather, Tanning and Finishing (SIC 311)................ 113
  Boot and Shoe Cut Stock and Findings (SIC 313).......... 115
  Footwear, except Rubber (SIC 314)....................... 117
  Handbags and Personal Leather Goods (SIC 317)........... 119

Stone, Clay, and Glass Products (SIC 32)...................... 121
  Concrete, Gypsum,and Plastic Products (SIC 327)......... 127
  Misc. Nonmetallic Mineral Products (SIC 329)............ 129

Primary Metal Industries (SIC 33)............................. 132
  Blast Furnace and Steel Products (SIC 331).............. 138
  Iron and Steel Foundries (SIC 332)...................... 140
  Nonferrous Rolling, Drawing (SIC 335)................... 141
  Miscellaneous Primary Metals Products (SIC 339)......... 144

Fabricated Metal Products (SIC 34)............................ 146
  Cutlery, Hand Tools and Hardware (SIC 342).............. 152
  Structural Metal Products (SIC 344)..................... 155
  Screw Machine Products, Bolts etc. (SIC 345)............ 158
  Forgings and Stampings (SIC 346)........................ 160
  Metal Industries n.e.c. (SIC 347)....................... 164
  Ordnance and Accessories (SIC 348)...................... 166

TABLE OF CONTENTS
(continued)

Page

Machinery,except Electrical (SIC 35).......................... 169
  Engines and Turbines (SIC 351)............................... 176
  Metalworking Machinery and Equipment (SIC 354).............. 179
  Special Industry Machinery (SIC 355)........................ 182
  General Industry Machinery (SIC 356)........................ 184
  Office and Computing Machines (SIC 357)..................... 188
  Misc. Machinery, except Electrical (SIC 359)................ 191

Electrical Equipment and Supplies (SIC 36).................... 194
  Electrical Industrial Apparatus (SIC 362)................... 198
  Electrical Lighting and Wiring Equipment (SIC 364).......... 201
  Communications Equipment (SIC 366).......................... 203
  Electronic Components and Accessories (SIC 367)............. 206

Transportation Equipment (SIC 37)............................. 209
  Aircraft and Parts (SIC 372)................................ 210
  Ship and Boat Building and Repair (SIC 373)................. 213

Instruments and Related Products (SIC 38)..................... 216
  Engineering and Scientific Instruments (SIC 381)............ 222
  Measuring and Controlling Instruments (SIC 382) 225
  Optical Instruments and Lenses (SIC 383).................... 228
  Ophthalmic Goods (SIC 385).................................. 230
  Photo Equipment and Supplies (SIC 386)...................... 232
  Watches, Clocks and Watchcases (SIC 387).................... 235

Miscellaneous Manufacturing Industries (SIC 39)............... 237
  Jewelry, Silver and Plated Ware (SIC 391)................... 241
  Costume Jewelry and Notions (SIC 396)....................... 244
  Miscellaneous Manufacturing (SIC 399)....................... 246

Description of Major Occupational Categories.................. 248

METHODOLOGY

The Sample

The second quarter 1983 report (ES 202) of employment and wages covered by the Massachusetts Employment Security Law was used as a sampling frame for the Occupational Employment Statistics survey of manufacturing establishments.

The sampling frame was stratified by three-digit SIC's (Standard Industrial Classification) and by nine employment size classes. Establishments with less than four employees were excluded from the sample and all units with employment of two hundred and fifty or more were automatically included. All other establishments were subject to sample selection on a random basis, with the units in larger size classes having a proportionately higher chance of selection. Each unit was given a weight according to the proportion of firms selected in each size class. The sample included 3,831 establishments with benchmark of 508,253.

The Survey and Responses

Each establishment was mailed a survey schedule; telephone calls and personal visits were made where the date was critical for calculating valid estimates. As many as three follow-up schedules were mailed to nonrespondents. Of the 3,831 establishments in the survey, replies were received from 2,840 or 74.1 percent. After manual editing and mechanical (computer) screening, 2,657 responses with total employment of 334,762 were determined useable, 65,9 percent of sample employment.

The Estimating Procedure

All useable responses were stratified into seven size groups, by industry. Reported total employment (or the summed occupational employment) from each useable response was multiplied by the weight assigned during sample selection. These industry data were then divided into the employment in the ES-202 report for the reference month of the survey (stratified by corresponding size class cells). The result produced by the procedure is known as the benchmark factor. This factor was then applied to the occupational data, thus accounting for nonresponse. These occupational estimates were then summed across size classed to industry totals.

Sampling Error

Sampling error is an arithmetic measure of the precision of the estimate. It is the difference between the estimate computed from the sample and the result that would have been obtained if the same methods were used to collect identical information from the universe. The relative errors listed in this report are the sampling errors of each occupation expressed as a percent of that occupational estimate. The relative errors shown are such that the chances are 2 out of 3 that the results of collecting identical information from the entire population would not differ by more than the percent of relative error shown; the chances are 19 out of 20, that the results of collecting identical information from the entire population would not differ by more than twice the percent shown. For example, it is estimated in this report that there are 570 secretaries employed in SIC 20,Food and Kindred Products, making up 2.30 percent of total employment in the industry. Thus, the chances are about 68 out of 100 that the results of comparable full scale data collection would differ by less than 74 (13 percent) from the 570 estimated;similarly the estimated 2.30 percent of total employment would differ by less than 0.30 percent of total employment.

Nonsampling Error

The results of this survey are subject to biases and other nonsampling errors. Although careful editing and screening steps were taken, responding establishmentments may account for some errors in computations and processing, as well as placing workers in a wrong occupation. The nonrespondents are a source of nonsampling error for which measures are not available but are reflected in the estimating procedure.

SCOPE OF SURVEY

This survey covered all Standard Industrial Classifications in the Manufacturing Division of the 1972 Manual. For your convenience listed below are the two-digit SIC Codes with their short titles.

SIC Code	SHORT TITLES
20	Food and Kindred Products
21	Tobacco Manufactures
22	Textile Mill Products
23	Apparel and Other Textile Products
24	Lumber and Wood Products
25	Furniture and Fixtures
26	Paper and Allied Products
27	Printing and Publishing
28	Chemicals and Allied Products
29	Petroleum and Coal Products
31	Leather and Leather Products
32	Stone, Clay, and Glass Products
33	Primary Metal Products
34	Fabricated Metal Products
35	Machinery, except Electrical
36	Electrical Equipment and Supplies
37	Transportation Equipment
38	Instruments and Related Products
39	Miscellaneous Manufacturing Products

Based on 1972 SIC Codes

MANUFACTURING EMPLOYMENT*
ANNUAL AVERAGES 1980-1983

SIC		1980[1/]	1981	1982	1983	Percent Change 80-83
	TOTAL	674.9	669.4	636.9	634.7	- 6.0
	Durables	411.3	411.5	392.0	415.1	+ .9
	Nondurables	263.4	257.9	244.9	219.5	-16.7
20	Food	27.4	25.4	24.7	24.4	-10.9
22	Textiles	25.6	24.3	20.9	20.2	-21.1
23	Apparel	39.8	39.6	37.3	35.9	- 9.8
24-25	Lumber & Furniture	13.3	13.0	11.5	12.0	- 9.8
26	Paper	28.2	27.2	26.2	25.8	- 0.7
27	Printing	44.1	45.1	45.5	47.5	+ 7.7
28	Chemicals	18.4	18.4	17.5	16.8	- 8.7
30	Rubber	30.6	29.5	29.4	30.5	- .3
31	Leather	21.4	20.9	18.6	16.9	-21.0
32	Stone, Clay, Glass	13.1	12.8	11.7	11.2	-14.5
33	Primary Metals	17.5	17.2	15.4	13.3[2/]	-24.0
34	Fabricated Metals	53.4	51.5	47.3	46.1	-13.7
35	Nonelectrical Machinery	109.6	109.9	104.5	102.5	- 6.5
36	Electrical Machinery	110.5	112.3	111.6	114.8[2/]	+ 3.9
37	Transportation	35.4	33.2	30.9[2/]	35.0	- 1.1
38	Instruments	58.5	61.7	59.1	57.9	- 1.0
39	Miscellaneous Mfg.	26.6	25.6	23.1	22.4	-15.8
21-29	Other Nondurables	1.5	1.9	1.7	1.5	0

Source: ES-202

1/ Year of last manufacturing survey

* May not add due to rounding

2/ Industries with significant non-economic code changes.

Annual averages do not reflect non-economic code changes.

PERCENTAGE DISTRIBUTION
Of
MANUFACTURING EMPLOYMENT*

ANNUAL AVERAGES 1980-1983

SIC		1980 1/	1981	1982	1983
	TOTAL	674.9	669.4	636.9	634.8
	Durables	60.9	61.5	61.5	65.4
	Nondurables	39.1	38.5	38.5	34.6
20	Food	4.1	3.8	3.9	3.8
22	Textiles	3.8	3.6	3.3	3.2
23	Apparel	5.9	5.9	5.9	5.7
24-25	Lumber and Furniture	2.0	1.9	1.8	1.9
26	Paper	4.2	4.1	4.1	4.1
27	Printing	6.5	6.7	7.1	7.5
28	Chemicals	2.7	2.7	2.7	2.6
30	Rubber	4.5	4.4	4.6	4.8
31	Leather	3.2	3.1	2.9	2.7
32	Stone, Clay, Glass	1.9	1.9	1.8	1.8
33	Primary Metals	2.6	2.6	2.4	2.1
34	Fabricated Metals	7.9	7.7	7.4	7.3
35	Nonelectrical Machinery	16.2	16.4	16.4	16.1
36	Electrical Machinery	16.4	16.8	17.5	18.1
37	Transportation	5.2	5.0	4.9	5.5
38	Instruments	8.7	9.2	9.3	9.1
39	Miscellaneous Mfg.	3.9	3.8	3.6	3.5
21-29	Other Nondurables	0.2	0.3	0.3	0.2

Source: ES-202

1/ Year of last manufacturing survey

* May not add due to rounding

SIC 20

This major group includes establishments manufacturing or processing foods and beverages for human consumption, and certain related products, oils, and prepared feed for animals and fowls.

Employment in the food and kindred products industry of 24,400 workers accounted for a 3.8 percent share of the total 1983 manufacturing employment, declining from a 4.1 percent share in 1980. Contributing to the decline was the continued decrease in demand for prepared foods by the ever increasing number of fast food outlets and the increased use of labor saving automated equipment by the food processors.

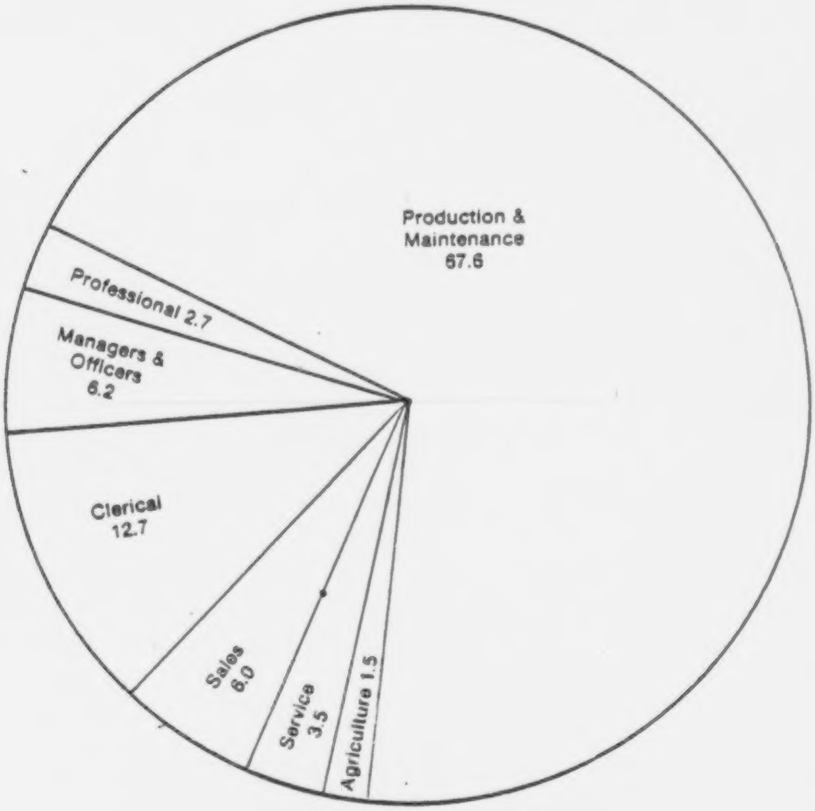
PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

	20	201	202	203	205	208
TOTAL	100%	100%	100%	100%	100%	100%
Managerial & Administrative	6.14	5.08	9.38	5.00	5.35	7.76
Profess., Paraprofess., Tech.,Occs.	2.70	0.85	4.44	2.50	1.56	4.74
Sales and Related Occs.	5.98	6.78	7.16	6.25	9.35	10.78
Clerical & Admin. Support Occs.	12.69	7.63	19.01	15.00	9.80	13.79
Service Occs.	3.49	0.85	0.99	3.75	7.80	3.02
Agri., Forestry, Fish., Rel. Occs.	1.46	0.42	--	3.13	--	--
Prod., Construc., & Maint., Occs.	67.54	77.54	59.01	64.38	65.92	60.78

The majority of occupations in this industry, 67 percent, are in the production and maintenance category wih 2,380 jobs for machine operators and tenders followed by 1,940 jobs for hand packers and packagers. Other than in the production area the two most important occupations are top executives with 1,020 jobs and sales representatives employing 630 people.

FOOD AND KINDRED PRODUCTS (SIC 20)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	All Other Machine Operators and Tenders	2,380
2.	Hand Packers and Packagers	1,940
3.	All Other Hand Workers	1,530
4.	All Other Helpers, Laborers, and Material Movers, Hand	1,520
5.	Driver/Sales Workers	1,180
6.	General Managers and Top Executives	1,020
7.	Supervisors, Production and Operating Workers	850
8.	Truck Drivers, Heavy or Tractor Trailer	670
9.	Sales Representatives, except Scientific Products and Retail	630
10.	Truck Drivers, Light - Include Delivery and Route Workers	580

These 10 occupational categories make up 49.7% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
FOOD AND KINDRED PRODUCTS
SIC = 20
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	24,740	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,520	6.14	N/A
FINANCIAL MANAGERS	120	0.49	17
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	50	0.20	21
PURCHASING MANAGERS	30	0.12	22
ADMINISTRATIVE SERVICES MANAGERS	40	0.16	36
GENERAL MANAGERS AND TOP EXECUTIVES	1,020	4.12	15
ALL OTHER MANAGERS AND ADMINISTRATORS	260	1.05	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	660	2.67	N/A
ACCOUNTANTS AND AUDITORS	220	0.89	14
ALL OTHER FINANCIAL SPECIALISTS	20	0.08	N/A
PURCHASING AGENTS AND BUYERS-FARM PRODUCTS	30	0.12	30
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	30	0.12	23
COST ESTIMATORS	20	0.08	29
COMPLIANCE OFFICERS & ENFORCEMENT INSPECTORS	10	0.04	20
ALL OTHER MANAGEMENT SUPPORT WORKERS	60	0.24	N/A
MECHANICAL ENGINEERS	30	0.12	28
ALL OTHER ENGINEERS	20	0.08	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	0.08	N/A
AGRICULTURAL AND FOOD SCIENTISTS	20	0.08	33
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	80	0.32	N/A
COMPUTER PROGRAMMERS	70	0.28	27
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	10	0.04	33
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	20	0.08	N/A
SALES AND RELATED OCCUPATIONS	1,480	5.98	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	150	0.61	26
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	140	0.57	34
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	630	2.55	17
SALESPERSONS, RETAIL	320	1.29	43
ALL OTHER SALES AND RELATED WORKERS	240	0.97	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	3,140	12.69	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	50	0.20	20
SECRETARIES	570	2.30	13
RECEPTIONIST AND INFORMATION CLERKS	20	0.08	27
TYPISTS	60	0.24	34

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
FOOD AND KINDRED PRODUCTS
SIC = 20
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	20	0.08	27
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	100	0.40	23
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	540	2.18	11
PAYROLL AND TIMEKEEPING CLERKS	40	0.16	20
BILLING, COST AND RATE CLERKS	130	0.53	14
GENERAL OFFICE CLERKS	460	1.86	15
BILLING, POSTING, CALCULATING MACH. OPERATORS	20	0.08	31
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	40	0.16	18
DATA ENTRY KEYERS, EXCEPT COMPOSING	90	0.36	15
ALL OTHER OFFICE MACHINE OPERATORS	10	0.04	N/A
SWITCHBOARD OPERATORS	40	0.16	23
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	60	0.24	32
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	570	2.30	16
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	270	1.09	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	50	0.20	N/A
SERVICE OCCUPATIONS	860	3.48	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	100	0.40	32
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	530	2.14	15
ELEVATOR OPERATORS	20	0.08	18
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	30	0.12	50
ALL OTHER SERVICE WORKERS	210	0.85	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	360	1.46	N/A
ALL OTHER AGRIC,FOR,FISH, & RELATED WORKERS	360	1.46	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	16,710	67.54	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	80	0.32	23
SUPERVISORS-PRODUCTION & OPERATING WORKERS	850	3.44	17
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	80	0.32	16
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	60	0.24	20
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	120	0.49	23
MACHINERY MAINTENANCE MECHANICS	510	2.06	15
MAINTENANCE REPAIRERS, GENERAL UTILITY	400	1.62	19
COIN AND VENDING MACHINE SERVICER & REPAIRERS	100	0.40	33
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	200	0.81	N/A
ELECTRICIANS	60	0.24	18
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	30	0.12	30
ALL OTHER CONSTRUCTION TRADES WORKERS	60	0.24	N/A
MACHINISTS	30	0.12	16
SHEET METAL WORKERS	10	0.04	32

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
FOOD AND KINDRED PRODUCTS
SIC = 20
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SLAUGHTERERS AND BUTCHERS	60	0.24	30
BAKERS, MANUFACTURING	400	1.62	25
FOOD BATCHMAKERS	410	1.66	23
ALL OTHER PRECISION FOOD AND TOBACCO WORKERS	80	0.32	N/A
COOKING MACHINE OPER, TENDERS, FOOD, TOBACCO	220	0.89	23
ROASTING, BAKING & DRYING MACHINE OPERATORS	260	1.05	24
BOILER OPERATORS AND TENDERS, LOW PRESSURE	20	0.08	19
DAIRY PROCESS EQUIPMENT OPERATORS & SETTERS	380	1.54	19
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	570	2.30	26
EXTRUDING, FORMING, PRESSING MACHINE SETTERS	30	0.12	28
EXTRUDING, FORMING, PRESSING MACHINE OPERATOR	160	0.65	25
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	90	0.36	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	2,380	9.62	N/A
ALL OTHER HAND WORKERS	1,530	6.18	N/A
STATIONARY ENGINEERS	20	0.08	32
ALL OTHER PLANT AND SYSTEM OPERATORS	10	0.04	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	670	2.71	15
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	580	2.34	34
DRIVER/SALES WORKERS	1,180	4.77	20
ALL OTHER TRANSPORTATION AND RELATED WORKERS	10	0.04	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	370	1.50	14
CONVEYOR OPERATORS AND TENDERS	40	0.16	15
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	10	0.04	N/A
CONSTRUCTION TRADES, EXTRACTIVE WORKER HELPER	60	0.24	4
MACHINE FEEDERS AND OFFBEARERS	440	1.78	28
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	540	2.18	27
HAND PACKERS AND PACKAGERS	1,940	7.84	23
VEHICLE WASHERS AND EQUIPMENT CLEANERS	150	0.61	35
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	1,520	6.14	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MEAT PRODUCTS
SIC = 201
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,360	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	120	5.08	N/A
FINANCIAL MANAGERS	10	0.42	14
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.42	N/A
ADMINISTRATIVE SERVICES MANAGERS	10	0.42	28
GENERAL MANAGERS AND TOP EXECUTIVES	70	2.97	13
ALL OTHER MANAGERS AND ADMINISTRATORS	20	0.85	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	20	0.85	N/A
ACCOUNTANTS AND AUDITORS	10	0.42	35
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.42	N/A
SALES AND RELATED OCCUPATIONS	160	6.78	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	80	3.39	13
ALL OTHER SALES AND RELATED WORKERS	90	3.81	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	180	7.63	N/A
SECRETARIES	20	0.85	22
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	40	1.69	17
GENERAL OFFICE CLERKS	20	0.85	29
ALL OTHER OFFICE MACHINE OPERATORS	10	0.42	N/A
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS	20	0.85	32
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	40	1.69	15
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.42	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	0.85	N/A
SERVICE OCCUPATIONS	20	0.85	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	**	0.00	N/A
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	20	0.85	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	10	0.42	N/A
ALL OTHER AGRIC,FOR,FISH, & RELATED WORKERS	10	0.42	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,830	77.54	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	40	1.69	24
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	40	1.69	12
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	20	0.85	N/A
MACHINERY MAINTENANCE MECHANICS	20	0.85	28
MAINTENANCE REPAIRERS, GENERAL UTILITY	40	1.69	15
SLAUGHTERERS AND BUTCHERS	50	2.12	33
ALL OTHER PRECISION FOOD AND TOBACCO WORKERS	60	2.54	N/A
BOILER OPERATORS AND TENDERS, LOW PRESSURE	10	0.42	N/A
CUTTING, SLICING MACH OPERATORS AND TENDERS	20	0.85	24

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MEAT PRODUCTS
SIC = 201
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	130	5.51	21
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	110	4.66	17
ALL OTHER MACHINE OPERATORS AND TENDERS	70	2.97	N/A
MEAT,POULTRY,FISH CUTTERS & TRIMMERS- HAND	250	10.59	19
ALL OTHER HAND WORKERS	30	1.27	28
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	10	0.42	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	60	2.54	32
ALL OTHER MOTOR VEHICLE OPERATORS	20	0.85	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	70	2.97	N/A
HAND PACKERS AND PACKAGERS	180	7.63	25
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	620	26.27	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
DAIRY PRODUCTS
SIC = 202
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,050	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	380	9.38	N/A
FINANCIAL MANAGERS	40	0.99	20
PURCHASING MANAGERS	10	0.25	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	40	0.99	17
ADMINISTRATIVE SERVICES MANAGERS	20	0.49	25
INDUSTRIAL PRODUCTION MANAGERS	10	0.25	32
ALL OTHER MANAGERS AND ADMINISTRATORS	260	6.42	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	180	4.44	N/A
ACCOUNTANTS AND AUDITORS	50	1.23	29
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	20	0.49	26
COST ESTIMATORS	10	0.25	32
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.25	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	30	0.74	N/A
AGRICULTURAL AND FOOD SCIENTISTS	10	0.25	31
COMPUTER PROGRAMMERS	10	0.25	32
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	10	0.25	25
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	30	0.74	N/A
SALES AND RELATED OCCUPATIONS	290	7.16	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	50	1.23	23
ALL OTHER SALES AND RELATED WORKERS	240	5.93	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	770	19.01	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.25	23
SECRETARIES	220	5.43	22
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.25	17
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	140	3.46	29
BILLING, COST AND RATE CLERKS	50	1.23	13
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	20	0.49	N/A
DATA ENTRY KEYERS, EXCEPT COMPOSING	40	0.99	16
SWITCHBOARD OPERATORS	10	0.25	33
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	270	6.67	N/A
SERVICE OCCUPATIONS	40	0.99	N/A
FOOD & BEVERAGE PREPARATION & SERVICE OCCUP.	10	0.25	8
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	20	0.49	30
ALL OTHER SERVICE WORKERS	10	0.25	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,390	59.01	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	270	6.67	N/A
ELECTRICIANS	20	0.49	32
ALL OTHER CONSTRUCTION TRADES WORKERS	50	1.23	N/A
FOOD BATCHMAKERS	30	0.74	31

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
DAIRY PRODUCTS
SIC = 202
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER PRECISION FOOD AND TOBACCO WORKERS	10	0.25	N/A
BOILER OPERATORS AND TENDERS, LOW PRESSURE	10	0.25	32
DAIRY PROCESS EQUIPMENT OPERATORS & SETTERS	380	9.38	19
EXTRUDING, FORMING, PRESSING MACHINE SETTERS	20	0.49	30
ALL OTHER MACHINE OPERATORS AND TENDERS	270	6.67	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	190	4.69	23
ALL OTHER MOTOR VEHICLE OPERATORS	630	15.56	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	60	1.48	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	220	5.43	33
VEHICLE WASHERS AND EQUIPMENT CLEANERS	50	1.23	34
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	200	4.94	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PRESERVED FRUITS AND VEGETABLES
SIC = 203
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,600	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	80	5.00	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	70	4.38	19
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.63	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	40	2.50	N/A
ALL OTHER FINANCIAL SPECIALISTS	10	0.63	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.63	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	1.25	N/A
SALES AND RELATED OCCUPATIONS	100	6.25	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	20	1.25	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	10	0.63	35
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	60	3.75	26
ALL OTHER SALES AND RELATED WORKERS	10	0.63	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	240	15.00	N/A
SECRETARIES	40	2.50	17
TYPISTS	10	0.63	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	30	1.88	20
GENERAL OFFICE CLERKS	40	2.50	21
ALL OTHER OFFICE MACHINE OPERATORS	10	0.63	N/A
ALL OTHER COMMUNICATIONS EQUIPMENT OPERATORS	**	0.00	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	40	2.50	32
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	60	3.75	27
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.63	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	1.25	N/A
SERVICE OCCUPATIONS	60	3.75	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	10	0.63	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	50	3.13	33
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	50	3.13	N/A
ALL OTHER AGRIC,FOR,FISH, & RELATED WORKERS	50	3.13	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,030	64.38	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	80	5.00	20
MACHINERY MAINTENANCE MECHANICS	30	1.88	33
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	1.88	25
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.63	N/A
ALL OTHER PRECISION FOOD AND TOBACCO WORKERS	10	0.63	N/A
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	60	3.75	28
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	220	13.75	21
ALL OTHER MACHINE OPERATORS AND TENDERS	60	3.75	N/A
ALL OTHER HAND WORKERS	10	0.63	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PRESERVED FRUITS AND VEGETABLES
SIC = 203
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	40	2.50	21
ALL OTHER MOTOR VEHICLE OPERATORS	20	1.25	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	60	3.75	8
CONVEYOR OPERATORS AND TENDERS	30	1.88	N/A
CONSTRUCTION TRADES, EXTRACTIVE WORKER HELPER	60	3.75	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	70	4.38	N/A
HAND PACKERS AND PACKAGERS	140	8.75	33
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	100	6.25	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
BAKERY PRODUCTS
SIC = 205
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,490	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	240	5.35	N/A
FINANCIAL MANAGERS	10	0.22	12
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.22	12
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	20	0.45	34
GENERAL MANAGERS AND TOP EXECUTIVES	180	4.01	26
ALL OTHER MANAGERS AND ADMINISTRATORS	30	0.67	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	70	1.56	N/A
ALL OTHER FINANCIAL SPECIALISTS	40	0.89	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.45	N/A
ALL OTHER ENGINEERS	10	0.22	N/A
SALES AND RELATED OCCUPATIONS	420	9.35	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	30	0.67	N/A
ALL OTHER SALES AND RELATED WORKERS	390	8.69	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	440	9.80	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.22	29
ALL OTHER SECRETARIES	30	0.67	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	70	1.56	24
PAYROLL AND TIMEKEEPING CLERKS	10	0.22	10
BILLING, COST AND RATE CLERKS	30	0.67	34
GENERAL OFFICE CLERKS	110	2.45	27
ALL OTHER OFFICE MACHINE OPERATORS	10	0.22	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.22	25
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	170	3.79	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.22	N/A
SERVICE OCCUPATIONS	350	7.80	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	60	1.34	N/A
ALL OTHER FOOD SERVICE WORKERS	120	2.67	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	170	3.79	32
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,960	65.92	N/A
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	20	0.45	28
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	280	6.24	N/A
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	20	0.45	N/A
MACHINERY MAINTENANCE MECHANICS	130	2.90	33
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	110	2.45	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	30	0.67	N/A
BAKERS, MANUFACTURING	400	8.91	26
ALL OTHER PRECISION FOOD AND TOBACCO WORKERS	20	0.45	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	110	2.45	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
BAKERY PRODUCTS
SIC = 205
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER MACHINE OPERATORS AND TENDERS	400	8.91	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	10	0.22	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	140	3.12	25
ALL OTHER MOTOR VEHICLE OPERATORS	360	8.02	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	20	0.45	N/A
HAND PACKERS AND PACKAGERS	420	9.35	33
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	500	11.14	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
BEVERAGES
SIC = 208
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,320	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	180	7.76	N/A
FINANCIAL MANAGERS	20	0.86	19
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.43	12
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	30	1.29	8
INDUSTRIAL PRODUCTION MANAGERS	10	0.43	10
GENERAL MANAGERS AND TOP EXECUTIVES	110	4.74	17
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.43	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	110	4.74	N/A
ACCOUNTANTS AND AUDITORS	30	1.29	13
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.86	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.43	37
COMPUTER PROGRAMMERS	40	1.72	36
SALES AND RELATED OCCUPATIONS	250	10.78	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	20	0.86	23
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	120	5.17	12
CASHIERS	10	0.43	25
ALL OTHER SALES AND RELATED WORKERS	100	4.31	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	320	13.79	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.43	16
SECRETARIES	40	1.72	19
RECEPTIONIST AND INFORMATION CLERKS	10	0.43	N/A
TYPISTS	10	0.43	42
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	60	2.59	8
PAYROLL AND TIMEKEEPING CLERKS	10	0.43	N/A
BILLING, COST AND RATE CLERKS	20	0.86	18
GENERAL OFFICE CLERKS	70	3.02	13
BILLING, POSTING, CALCULATING MACH. OPERATORS	10	0.43	41
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.43	18
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.86	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.43	20
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	40	1.72	19
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.43	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.43	N/A
SERVICE OCCUPATIONS	70	3.02	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.43	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	10	0.43	N/A
FOOD & BEVERAGE PREPARATION & SERVICE OCCUP.	20	0.86	46
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	30	1.29	11

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
BEVERAGES
SIC = 208
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,410	60.78	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	10	0.43	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	110	4.74	14
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	20	0.86	N/A
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	20	0.86	21
MACHINERY MAINTENANCE MECHANICS	50	2.16	15
MAINTENANCE REPAIRERS, GENERAL UTILITY	20	0.86	19
AUTOMOTIVE MECHANICS	20	0.86	12
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	10	0.43	32
COIN AND VENDING MACHINE SERVICER & REPAIRERS	80	3.45	14
ALL OTHER CONSTRUCTION TRADES WORKERS	**	0.00	N/A
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	240	10.34	20
ALL OTHER MACHINE OPERATORS AND TENDERS	10	0.43	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	100	4.31	21
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	20	0.86	38
DRIVER/SALES WORKERS	350	15.09	11
ALL OTHER TRANSPORTATION AND RELATED WORKERS	10	0.43	32
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	150	6.47	8
MECHANIC AND REPAIRER HELPERS	10	0.43	26
MACHINE FEEDERS AND OFFBEARERS	20	0.86	43
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	20	0.86	31
HAND PACKERS AND PACKAGERS	30	1.29	42
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	90	3.88	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

SIC 22

This major group includes establishments engaged in the preparation and manufacturing of yarn, thread, twine, and cordage into a finished fabric, also included are products and articles produced from yarn.. The 1983 employment level in textile mills is 21 percent lower than the 1980 employment level of 25,600 jobs. The textile mill industry has been severly crippled during the last decade by new automation and foreign competition. However, its 1983 employment level of 20,200 jobs indicates a slowdown of the average annual decline we have seen over the last 10 years.

PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

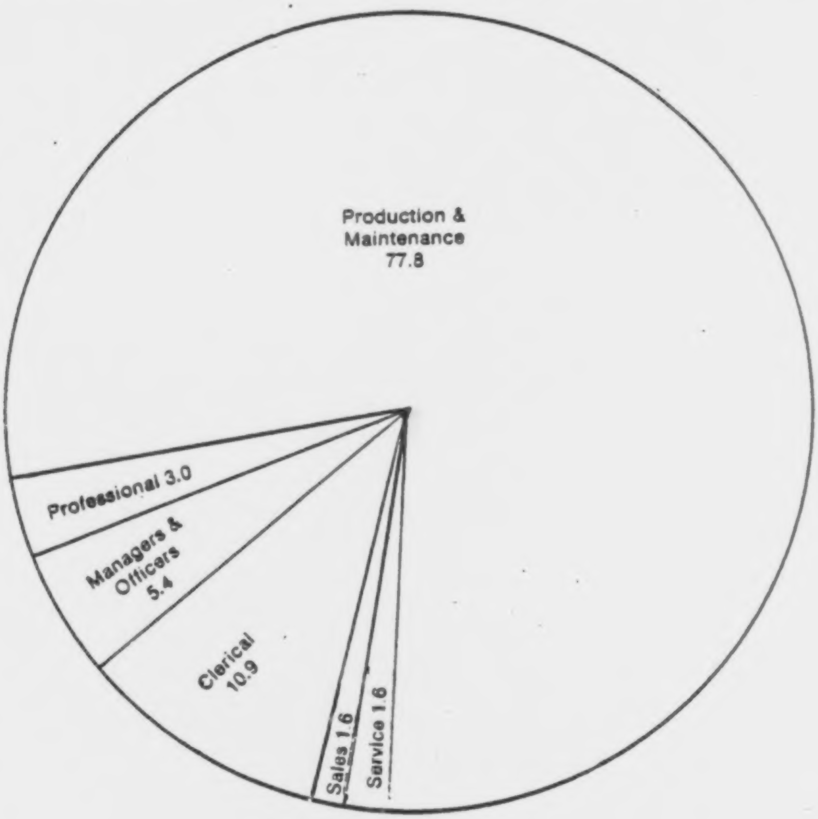
	22	223	224	225	226	228	229
TOTAL	100%	100%	100%	100%	100%	100%	100%
Managerial & Admin.	5.42	4.93	5.31	4.42	3.52	3.42	9.49
Prof. & Tech. Occs.	3.01	2.11	.88	2.06	2.28	1.37	6.12
Sales Occs.	1.58	2.11	1.77	1.18	.41	2.74	3.38
Clerical Occs.	10.85	8.45	7.96	12.98	9.32	8.90	15.82
Service Occs.	1.58	1.41	.88	.88	.83	1.37	2.95
Prod. & Maint. Occs.	77.76	81.69	83.19	78.47	83.64	82.88	62.45

Analysis of the Industry by Occupational Category shows Production and Maintenance Occupations continuing to dominate the industry with an increase of 4.1 percent since the 1980 survey (73.7 percent to 77.8 percent). Eight of the top ten ranked occupations are in this category.

Clerical occupations dropped from 14.4 percent of employment in 1980 to 10.9 percent in 1983, reflecting office automation trends.

TEXTILE MILL PRODUCTS (SIC 22)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Textile Machine Operators and Tenders	4,130
2.	Textile Bleaching and Dyeing, Machine Operators and Tenders	1,470
3.	Textile Machine Setters and Set-up Operators	970
4.	Supervisors, Production and Operating Workers	940
5.	Production Inspectors, Testers Graders, Sorters, Samplers and Weighers	820
6.	Cutting and Slicing Machine Operators and Tenders	820
7.	General Managers and Top Executives	680
8.	Sewing Machine Operators, Garment	660
9.	Machinery Maintenance, Mechanics, Textile Machines	570
10.	General Office Clerks	360

These 10 occupational catagories makes up 56.3% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
TEXTILE MILL PRODUCTS
SIC = 22
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	20,280	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,100	5.42	N/A
FINANCIAL MANAGERS	80	0.39	16
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	40	0.20	12
PURCHASING MANAGERS	20	0.10	12
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	40	0.20	12
ADMINISTRATIVE SERVICES MANAGERS	30	0.15	20
INDUSTRIAL PRODUCTION MANAGERS	120	0.59	11
GENERAL MANAGERS AND TOP EXECUTIVES	680	3.35	9
ALL OTHER MANAGERS AND ADMINISTRATORS	90	0.44	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	610	3.01	N/A
ACCOUNTANTS AND AUDITORS	100	0.49	12
BUDGET ANALYSTS	10	0.05	29
ALL OTHER FINANCIAL SPECIALISTS	10	0.05	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	20	0.10	16
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	20	0.10	18
COST ESTIMATORS	10	0.05	29
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.05	N/A
CHEMICAL ENGINEERS	50	0.25	29
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	40	0.20	18
SAFETY ENGINEERS, EXCEPT MINING	10	0.05	20
MECHANICAL ENGINEERS	50	0.25	23
ALL OTHER ENGINEERS	10	0.05	N/A
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	20	0.10	13
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	20	0.10	32
DRAFTERS	**	0.00	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	50	0.25	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	40	0.20	19
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	40	0.20	29
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	**	0.00	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	50	0.25	43
COMPUTER PROGRAMMERS	30	0.15	29
COMPUTER PROGRAMMER AIDES	20	0.10	19
PROGRAMMERS-NUMERICAL, TOOL & PROCESS CONTROL	**	0.00	N/A
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	10	0.05	22
DESIGNERS, EXCEPT INTERIOR DESIGNERS	20	0.10	10
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	**	0.00	N/A
SALES AND RELATED OCCUPATIONS	320	1.58	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	80	0.39	35
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	80	0.39	28
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	140	0.69	18
DEMONSTRATORS, PROMOTERS, AND MODELS	**	0.00	N/A
ALL OTHER SALES AND RELATED WORKERS	20	0.10	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
TEXTILE MILL PRODUCTS
SIC = 22
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	140	0.69	18
ALL OTHER SALES AND RELATED WORKERS	20	0.10	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	2,200	10.85	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	100	0.49	15
SECRETARIES	270	1.33	11
STENOGRAPHERS	10	0.05	17
RECEPTIONIST AND INFORMATION CLERKS	20	0.10	14
TYPISTS	50	0.25	13
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.05	29
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	20	0.10	19
FILE CLERKS	40	0.20	24
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	70	0.35	24
PROCUREMENT CLERKS	20	0.10	8
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	240	1.18	10
PAYROLL AND TIMEKEEPING CLERKS	50	0.25	14
BILLING, COST AND RATE CLERKS	110	0.54	9
GENERAL OFFICE CLERKS	360	1.78	29
BILLING, POSTING, CALCULATING MACH. OPERATORS	40	0.20	28
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	40	0.20	24
DATA ENTRY KEYERS, EXCEPT COMPOSING	50	0.25	17
SWITCHBOARD OPERATORS	30	0.15	8
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	150	0.74	13
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS	10	0.05	38
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	120	0.59	22
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	350	1.73	13
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	20	0.10	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	0.10	N/A
SERVICE OCCUPATIONS	320	1.58	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.05	45
GUARDS AND WATCH GUARDS	100	0.49	18
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	150	0.74	9
ELEVATOR OPERATORS	10	0.05	18
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.05	N/A
ALL OTHER SERVICE WORKERS	40	0.20	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	15,770	77.76	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	40	0.20	18
SUPERVISORS-PRODUCTION & OPERATING WORKERS	940	4.64	13
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	20	0.10	22
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	50	0.25	43

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
TEXTILE MILL PRODUCTS
SIC = 22
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRECISION INSPECTORS, TESTERS, AND GRADERS	120	0.59	27
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	820	4.04	9
MACHINERY MAINTENANCE MECHANICS, TEXTILE MACH	570	2.81	10
MACHINERY MAINTENANCE MECHANICS, SEWING MACH.	70	0.35	43
MACHINERY MAINT MECHANIC, WATER OR POWER GEN.	20	0.10	48
ALL OTHER MACHINERY MAINTENANCE MECHANICS	10	0.05	N/A
MILLWRIGHTS	20	0.10	29
MAINTENANCE REPAIRERS, GENERAL UTILITY	190	0.94	13
HEATING, A/C & REFRIG MECHANICS & INSTALLERS	10	0.05	17
MENDERS-GARMENTS, LINENS, AND RELATED	40	0.20	13
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	40	0.20	N/A
CARPENTERS	50	0.25	15
ELECTRICIANS	90	0.44	14
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	10	0.05	27
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	40	0.20	18
MACHINISTS	40	0.20	21
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	30	0.15	5
FABRIC, APPAREL PATTERNMAKER, LAYOUT WORKERS	10	0.05	25
PRESSERS, DELICATE FABRICS	10	0.05	N/A
PRECISION DYERS	80	0.39	22
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	70	0.35	N/A
PLAS MOLDING,CASTING MACH SETTERS,SET-UP OPER	80	0.39	48
SPEC MATERIALS PRINT MACH SETTER,SET-UP OPER	110	0.54	30
SCREEN PRINTING MACHINE SETTERS, SET-UP OPER	120	0.59	32
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	120	0.59	N/A
PRINTING PRESS MACHINE OPERATORS AND TENDERS	80	0.39	12
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	70	0.35	N/A
TEXTILE MACHINE SETTERS AND SET-UP OPERATORS	970	4.78	17
TEXTILE MACHINE OPERATORS AND TENDERS	4,130	20.36	7
EXTRUDING MACH OPER-TENDER,SYNTH,GLASS FIBERS	250	1.23	49
TEXTILE DRAW-OUT MACHINE OPERATORS & TENDERS	300	1.48	14
TEXTILE BLEACHING & DYEING MACH OPER & TENDER	1,470	7.25	26
SEWING MACHINE OPERATORS, GARMENT	660	3.25	34
SEWING MACHINE OPERATORS, NON-GARMENT	100	0.49	39
PRESSING MACH OPER & TENDERS-TEXTILE, GARMENT	70	0.35	30
FURNACE, KILN, OVEN, DRIER, KETTLE OPERATORS	40	0.20	6
BOILER OPERATORS AND TENDERS, LOW PRESSURE	80	0.39	9
CUTTING,SLICING MACH SETTER,SET-UP OPERATORS	80	0.39	49

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# TEXTILE MILL PRODUCTS
SIC = 22
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
CUTTING, SLICING MACH OPERATORS AND TENDERS	820	4.04	44
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	140	0.69	40
CLEAN,WASH,PICKLING EQUIP OPERATORS & TENDERS	80	0.39	40
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	100	0.49	21
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	140	0.69	30
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	20	0.10	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	340	1.68	N/A
SEWERS, HAND	80	0.39	12
CUTTERS AND TRIMMERS, HAND	50	0.25	48
PAINTING, COATING & DECORATING WORKERS- HAND	10	0.05	43
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	40	0.20	22
ALL OTHER HAND WORKERS	200	0.99	N/A
STATIONARY ENGINEERS	20	0.10	34
ALL OTHER PLANT AND SYSTEM OPERATORS	10	0.05	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	50	0.25	19
ALL OTHER MOTOR VEHICLE OPERATORS	50	0.25	N/A
ALL OTHER TRANSPORTATION AND RELATED WORKERS	20	0.10	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	190	0.94	15
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	40	0.20	N/A
MECHANIC AND REPAIRER HELPERS	20	0.10	27
CONSTRUCTION TRADES, EXTRACTIVE WORKER HELPER	10	0.05	N/A
MACHINE FEEDERS AND OFFBEARERS	260	1.28	29
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	330	1.63	15
HAND PACKERS AND PACKAGERS	310	1.53	26
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	320	1.58	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
BROAD WOVEN FABRIC MILLS, WOOL
SIC = 223
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,420	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	70	4.93	N/A
INDUSTRIAL PRODUCTION MANAGERS	10	0.70	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	40	2.82	12
ALL OTHER MANAGERS AND ADMINISTRATORS	20	1.41	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	30	2.11	N/A
ALL OTHER FINANCIAL SPECIALISTS	**	0.00	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.70	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	20	1.41	N/A
SALES AND RELATED OCCUPATIONS	30	2.11	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	20	1.41	23
ALL OTHER SALES AND RELATED WORKERS	10	0.70	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	120	8.45	N/A
SECRETARIES	20	1.41	24
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	10	0.70	25
PAYROLL AND TIMEKEEPING CLERKS	10	0.70	N/A
BILLING, COST AND RATE CLERKS	10	0.70	N/A
GENERAL OFFICE CLERKS	20	1.41	21
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	20	1.41	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.70	33
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	30	2.11	21
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.70	N/A
SERVICE OCCUPATIONS	20	1.41	N/A
GUARDS AND WATCH GUARDS	10	0.70	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	10	0.70	14
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,160	81.69	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	50	3.52	19
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	40	2.82	33
MACHINERY MAINTENANCE MECHANICS, TEXTILE MACH	60	4.23	14
MAINTENANCE REPAIRERS, GENERAL UTILITY	20	1.41	14
MENDERS-GARMENTS, LINENS, AND RELATED	10	0.70	25
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	10	0.70	25
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.70	N/A
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	10	0.70	N/A
TEXTILE MACHINE SETTERS AND SET-UP OPERATORS	90	6.34	5
TEXTILE MACHINE OPERATORS AND TENDERS	560	39.44	4
TEXTILE DRAW-OUT MACHINE OPERATORS & TENDERS	30	2.11	20

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
BROAD WOVEN FABRIC MILLS, WOOL
SIC = 223
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TEXTILE BLEACHING & DYEING MACH OPER & TENDER	70	4.93	31
LAUNDRY,DRYCLEANING MACH OPER,TEND,EXC PRESS	10	0.70	N/A
PRESSING MACH OPER & TENDERS-TEXTILE, GARMENT	10	0.70	16
BOILER OPERATORS AND TENDERS, LOW PRESSURE	10	0.70	N/A
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	10	0.70	50
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	10	0.70	16
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	20	1.41	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	30	2.11	N/A
SEWERS, HAND	50	3.52	17
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.70	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	10	0.70	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	10	0.70	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	40	2.82	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
NARROW FABRIC MILLS
SIC = 224
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,130	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	60	5.31	N/A
INDUSTRIAL PRODUCTION MANAGERS	10	0.88	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	40	3.54	7
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.88	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	10	0.88	N/A
SALES AND RELATED OCCUPATIONS	20	1.77	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	10	0.88	N/A
ALL OTHER SALES AND RELATED WORKERS	10	0.88	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	90	7.96	N/A
SECRETARIES	20	1.77	8
TYPISTS	10	0.88	20
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	20	1.77	2
GENERAL OFFICE CLERKS	10	0.88	25
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.88	14
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	20	1.77	6
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.88	N/A
SERVICE OCCUPATIONS	10	0.88	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	10	0.88	11
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	940	83.19	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	50	4.42	5
PRECISION INSPECTORS, TESTERS, AND GRADERS	20	1.77	25
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	40	3.54	21
MACHINERY MAINTENANCE MECHANICS, TEXTILE MACH	40	3.54	6
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.88	19
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	10	0.88	N/A
TEXTILE MACHINE SETTERS AND SET-UP OPERATORS	140	12.39	15
TEXTILE MACHINE OPERATORS AND TENDERS	450	39.82	6
TEXTILE DRAW-OUT MACHINE OPERATORS & TENDERS	20	1.77	45
TEXTILE BLEACHING & DYEING MACH OPER & TENDER	40	3.54	14
ALL OTHER MACHINE OPERATORS AND TENDERS	30	2.65	N/A
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	40	3.54	22
ALL OTHER HAND WORKERS	10	0.88	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	20	1.77	25
HAND PACKERS AND PACKAGERS	20	1.77	41

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
.KNITTING MILLS
SIC = 225
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT NUMBER[1]	EMPLOYMENT PERCENT OF TOTAL	EMPLOYMENT RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	3,390	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	150	4.42	N/A
FINANCIAL MANAGERS	10	0.29	40
INDUSTRIAL PRODUCTION MANAGERS	40	1.18	3
GENERAL MANAGERS AND TOP EXECUTIVES	80	2.36	17
ALL OTHER MANAGERS AND ADMINISTRATORS	20	0.59	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	70	2.06	N/A
ACCOUNTANTS AND AUDITORS	20	0.59	24
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.29	17
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.29	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	10	0.29	N/A
ALL OTHER ENGINEERS	10	0.29	N/A
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	10	0.29	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.29	N/A
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.29	20
SALES AND RELATED OCCUPATIONS	40	1.18	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	30	0.88	34
ALL OTHER SALES AND RELATED WORKERS	10	0.29	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	440	12.98	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	40	1.18	6
SECRETARIES	20	0.59	20
TYPISTS	30	0.88	N/A
FILE CLERKS	10	0.29	N/A
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	20	0.59	16
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	60	1.77	12
PAYROLL AND TIMEKEEPING CLERKS	10	0.29	44
BILLING, COST AND RATE CLERKS	10	0.29	22
GENERAL OFFICE CLERKS	110	3.24	25
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.29	35
ALL OTHER OFFICE MACHINE OPERATORS	10	0.29	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.29	34
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.29	45
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	70	2.06	29
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.29	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.29	N/A
SERVICE OCCUPATIONS	30	0.88	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	10	0.29	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	20	0.59	27

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
KNITTING MILLS
SIC = 225
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,660	78.47	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	70	2.06	31
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.29	N/A
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	200	5.90	18
MACHINERY MAINTENANCE MECHANICS, TEXTILE MACH	80	2.36	24
MACHINERY MAINTENANCE MECHANICS, SEWING MACH.	30	0.88	N/A
MILLWRIGHTS	10	0.29	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	20	0.59	50
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.29	N/A
MENDERS-GARMENTS, LINENS, AND RELATED	30	0.88	17
ELECTRICIANS	10	0.29	17
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	10	0.29	53
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.29	N/A
MACHINISTS	10	0.29	28
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	30	0.88	N/A
FABRIC, APPAREL PATTERNMAKER, LAYOUT WORKERS	10	0.29	25
PRESSERS, DELICATE FABRICS	10	0.29	N/A
PRECISION DYERS	40	1.18	11
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	50	1.47	N/A
SPEC MATERIALS PRINT MACH SETTER,SET-UP OPER	10	0.29	N/A
SCREEN PRINTING MACHINE SETTERS, SET-UP OPER	10	0.29	N/A
PRINTING PRESS MACHINE OPERATORS AND TENDERS	70	2.06	N/A
TEXTILE MACHINE SETTERS AND SET-UP OPERATORS	90	2.65	13
TEXTILE MACHINE OPERATORS AND TENDERS	660	19.47	13
TEXTILE DRAW-OUT MACHINE OPERATORS & TENDERS	40	1.18	N/A
TEXTILE BLEACHING & DYEING MACH OPER & TENDER	130	3.83	18
SEWING MACHINE OPERATORS, GARMENT	400	11.80	27
PRESSING MACH OPER & TENDERS-TEXTILE, GARMENT	60	1.77	36
FURNACE, KILN, OVEN, DRIER, KETTLE OPERATORS	10	0.29	N/A
CLEAN,WASH,PICKLING EQUIP OPERATORS & TENDERS	10	0.29	N/A
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	30	0.88	44
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	20	0.59	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	50	1.47	N/A
SEWERS, HAND	10	0.29	27
PORTABLE MACHINE CUTTERS	10	0.29	44
ALL OTHER HAND WORKERS	70	2.06	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	10	0.29	17
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.29	28

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
KNITTING MILLS
SIC = 225
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	30	0.88	5
MECHANIC AND REPAIRER HELPERS	10	0.29	N/A
CONSTRUCTION TRADES, EXTRACTIVE WORKER HELPER	10	0.29	N/A
MACHINE FEEDERS AND OFFBEARERS	70	2.06	49
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	50	1.47	19
HAND PACKERS AND PACKAGERS	150	4.42	49
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	40	1.18	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
DYEING AND FINISHING TEXTILES
SIC = 226
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,830	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	170	3.52	N/A
FINANCIAL MANAGERS	30	0.62	34
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.21	35
GENERAL MANAGERS AND TOP EXECUTIVES	90	1.86	28
ALL OTHER MANAGERS AND ADMINISTRATORS	50	1.04	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	110	2.28	N/A
ACCOUNTANTS AND AUDITORS	20	0.41	8
ALL OTHER FINANCIAL SPECIALISTS	**	0.00	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.21	N/A
ALL OTHER ENGINEERS	40	0.83	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.21	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	10	0.21	25
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	20	0.41	N/A
SALES AND RELATED OCCUPATIONS	20	0.41	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	20	0.41	28
ALL OTHER SALES AND RELATED WORKERS	10	0.21	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	450	9.32	N/A
SECRETARIES	30	0.62	15
FILE CLERKS	30	0.62	30
PROCUREMENT CLERKS	10	0.21	17
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	30	0.62	15
PAYROLL AND TIMEKEEPING CLERKS	20	0.41	31
BILLING, COST AND RATE CLERKS	20	0.41	28
GENERAL OFFICE CLERKS	50	1.04	28
BILLING, POSTING, CALCULATING MACH. OPERATORS	30	0.62	33
ALL OTHER OFFICE MACHINE OPERATORS	30	0.62	N/A
SWITCHBOARD OPERATORS	10	0.21	8
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	40	0.83	31
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	30	0.62	34
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	40	0.83	18
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	20	0.41	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	70	1.45	N/A
SERVICE OCCUPATIONS	40	0.83	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	10	0.21	N/A
GUARDS AND WATCH GUARDS	20	0.41	17
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	10	0.21	30

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
DYEING AND FINISHING TEXTILES
SIC = 226
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	4,040	83.64	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	10	0.21	10
SUPERVISORS-PRODUCTION & OPERATING WORKERS	240	4.97	7
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.21	N/A
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	280	5.80	13
MACHINERY MAINTENANCE MECHANICS, TEXTILE MACH	130	2.69	9
ALL OTHER MACHINERY MAINTENANCE MECHANICS	20	0.41	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	40	0.83	31
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.21	N/A
CARPENTERS	20	0.41	16
ELECTRICIANS	30	0.62	21
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	20	0.41	31
ALL OTHER PRECISION METAL WORKERS	10	0.21	N/A
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	30	0.62	N/A
ALL OTHER PRECISION WORKERS	10	0.21	N/A
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	220	4.55	N/A
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	70	1.45	N/A
TEXTILE MACHINE OPERATORS AND TENDERS	70	1.45	32
TEXTILE BLEACHING & DYEING MACH OPER & TENDER	1,140	23.60	33
BOILER OPERATORS AND TENDERS, LOW PRESSURE	50	1.04	9
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	20	0.41	27
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	40	0.83	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	1,130	23.40	N/A
ALL OTHER HAND WORKERS	40	0.83	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	20	0.41	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	10	0.21	35
ALL OTHER MOTOR VEHICLE OPERATORS	20	0.41	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	90	1.86	23
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	20	0.41	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	130	2.69	N/A
HAND PACKERS AND PACKAGERS	80	1.66	34
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	40	0.83	24

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
YARN AND THREAD MILLS
SIC = 228
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,460	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	50	3.42	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	40	2.74	8
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.68	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	20	1.37	N/A
ACCOUNTANTS AND AUDITORS	10	0.68	N/A
SALES AND RELATED OCCUPATIONS	40	2.74	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	20	1.37	N/A
ALL OTHER SALES AND RELATED WORKERS	10	0.68	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	130	8.90	N/A
SECRETARIES	20	1.37	7
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	10	0.68	12
GENERAL OFFICE CLERKS	30	2.05	4
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.68	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.68	22
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	40	2.74	11
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.68	N/A
SERVICE OCCUPATIONS	20	1.37	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	**	0.00	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	10	0.68	17
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,210	82.88	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	90	6.16	11
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	20	1.37	33
MACHINERY MAINTENANCE MECHANICS, TEXTILE MACH	60	4.11	11
MAINTENANCE REPAIRERS, GENERAL UTILITY	20	1.37	12
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.68	N/A
TEXTILE DRAW-OUT MACHINE OPERATORS & TENDERS	70	4.79	34
TEXTILE BLEACHING & DYEING MACH OPER & TENDER	10	0.68	8
SEWING MACHINE OPERATORS, GARMENT	10	0.68	29
FURNACE, KILN, OVEN, DRIER, KETTLE OPERATORS	20	1.37	N/A
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	10	0.68	27
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	10	0.68	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	780	53.42	N/A
SEWERS, HAND	10	0.68	29
CUTTERS AND TRIMMERS, HAND	10	0.68	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	50	3.42	20
HAND PACKERS AND PACKAGERS	20	1.37	6
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	10	0.68	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS TEXTILE GOODS
SIC = 229
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,740	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	450	9.49	N/A
FINANCIAL MANAGERS	20	0.42	9
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.21	10
PURCHASING MANAGERS	10	0.21	16
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	20	0.42	16
ADMINISTRATIVE SERVICES MANAGERS	10	0.21	27
INDUSTRIAL PRODUCTION MANAGERS	40	0.84	25
GENERAL MANAGERS AND TOP EXECUTIVES	290	6.12	14
ALL OTHER MANAGERS AND ADMINISTRATORS	50	1.05	36
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	290	6.12	N/A
ACCOUNTANTS AND AUDITORS	40	0.84	24
ALL OTHER FINANCIAL SPECIALISTS	10	0.21	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.21	26
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.21	N/A
CHEMICAL ENGINEERS	40	0.84	31
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	10	0.21	12
MECHANICAL ENGINEERS	20	0.42	26
ALL OTHER ENGINEERS	10	0.21	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	50	1.05	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	20	0.42	28
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	20	0.42	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.21	17
COMPUTER PROGRAMMERS	10	0.21	28
COMPUTER PROGRAMMER AIDES	10	0.21	28
SALES AND RELATED OCCUPATIONS	160	3.38	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	70	1.48	39
SALES REPS~~, SCIENTIFIC~~ PROD & SVCS-EXC RETAIL	50	1.05	36
ALL OTHER SALES AND RELATED WORKERS	40	0.84	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	750	15.82	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	20	0.42	28
SECRETARIES	130	2.74	21
RECEPTIONIST AND INFORMATION CLERKS	10	0.21	24
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.21	29
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.21	24
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	30	0.63	44
PROCUREMENT CLERKS	10	0.21	17
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	90	1.90	21

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS TEXTILE GOODS
SIC = 229
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PAYROLL AND TIMEKEEPING CLERKS	10	0.21	16
BILLING, COST AND RATE CLERKS	60	1.27	13
GENERAL OFFICE CLERKS	130	2.74	77
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.21	28
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.42	24
ALL OTHER OFFICE MACHINE OPERATORS	**	0.00	N/A
SWITCHBOARD OPERATORS	10	0.21	17
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	60	1.27	19
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	100	2.11	25
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	50	1.05	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	0.42	N/A
SERVICE OCCUPATIONS	140	2.95	N/A
GUARDS AND WATCH GUARDS	40	0.84	34
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	50	1.05	16
ELEVATOR OPERATORS	10	0.21	28
ALL OTHER SERVICE WORKERS	40	0.84	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,960	62.45	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	20	0.42	22
SUPERVISORS-PRODUCTION & OPERATING WORKERS	330	6.96	35
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	10	0.21	37
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	50	1.05	46
PRECISION INSPECTORS, TESTERS, AND GRADERS	60	1.27	32
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	150	3.16	26
MACHINERY MAINTENANCE MECHANICS, TEXTILE MACH	140	2.95	23
ALL OTHER MACHINERY MAINTENANCE MECHANICS	10	0.21	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	70	1.48	29
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.21	N/A
CARPENTERS	10	0.21	24
ELECTRICIANS	30	0.63	16
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	10	0.21	12
ALL OTHER CONSTRUCTION TRADES WORKERS	**	0.00	N/A
MACHINISTS	10	0.21	35
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	10	0.21	N/A
PLAS MOLDING,CASTING MACH SETTERS,SET-UP OPER	80	1.69	48
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	80	1.69	N/A
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	20	0.42	N/A
TEXTILE MACHINE OPERATORS AND TENDERS	590	12.45	22

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS TEXTILE GOODS
SIC = 229
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TEXTILE BLEACHING & DYEING MACH OPER & TENDER	10	0.21	49
BOILER OPERATORS AND TENDERS, LOW PRESSURE	20	0.42	25
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	100	2.11	47
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	60	1.27	33
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	120	2.53	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	420	8.86	N/A
ALL OTHER HAND WORKERS	110	2.32	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.21	22
ALL OTHER MOTOR VEHICLE OPERATORS	40	0.84	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	50	1.05	31
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	20	0.42	N/A
MACHINE FEEDERS AND OFFBEARERS	150	3.16	45
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	60	1.27	33
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	130	2.74	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

This major group, known as the cutting-up and needle trades, includes establishments producing clothing and fabricating products by cutting and sewing purchased woven or knit textile fabrics and related material such as leather, rubberized fabrics, plastics and furs.

Employment in the apparel industry has been on a gradual but steadily declining trend over the 1980-1983 period. In 1980, employment in the apparel industry stood at 39,800 but fell to 35,900 in 1983, a net decline of 3,900 jobs or -9.8 percent over this time frame. This three year decline continues the longer term decline that has been occurring. In 1970, the Massachusetts apparel industry had nearly 50,000 jobs but that number fell to 39,800 in 1980, a net decline of 10,200 jobs or -20.4 percent. Through 1983, the drop in jobs from 1970 was 14,100 or -28.2 percent. Foreign competition, automation, and the cost of labor have been cited as some of the contributing factors for this industry's employment decline.

PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

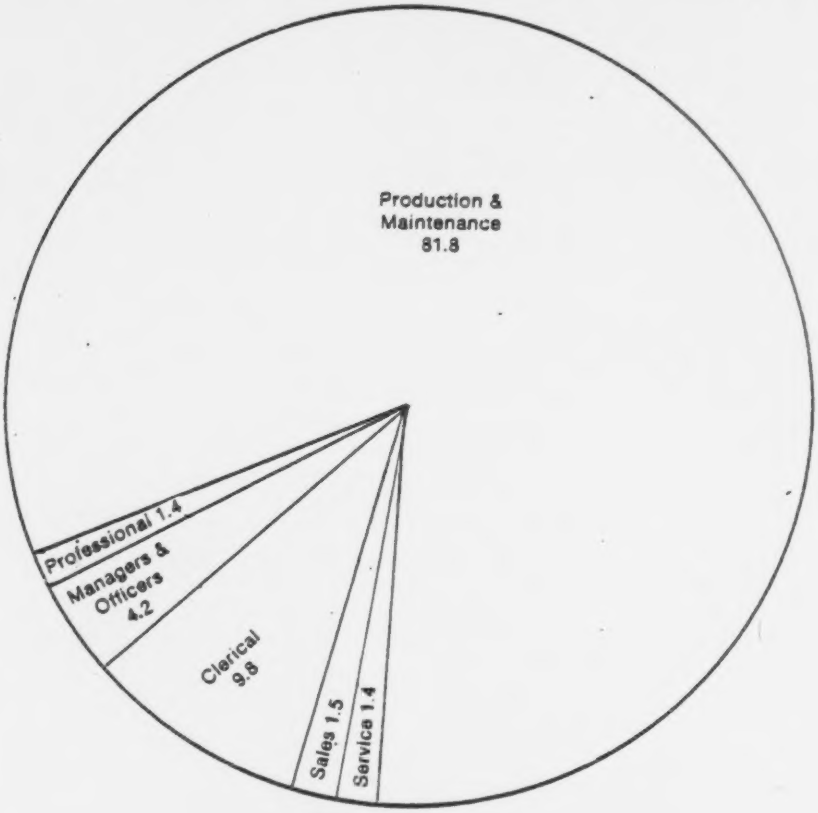
	23	231	233	234	238	239
.TOTAL	100%	100%	100%	100%	100%	100%
Managerial & Administrative	4.15	2.40	3.43	3.46	5.49	6.36
Profess.,Paraprofess., Tech.	1.35	1.31	1.52	1.30	2.75	1.24
Sales and Related	1.54	1.09	1.52	0.87	3.30	1.11
Clerical and Admin. Support	9.77	6.55	8.11	8.66	15.38	13.28
Service	0.14	0.87	1.58	0.87	2.75	1.38
Prod., Construction & Maint.	81.81	87.77	83.78	85.71	70.88	76.63

The occupations within the apparel industry are largely concentrated within the Production, Construction, and Maintenance occupations (over 80 percent of all occupations). This high level of production, construction and maintenance workers exists throughout all of the defined apparel industries. Nearly 50 percent of the production, construction and maintenance workers are sewing machine operators.

In contrast with the large percentages of professional, paraprofessional and technical workers in the state's growing industries, these occupations make up less than two percent of the apparel industry's employment level.

APPAREL AND OTHER FINISHED PRODUCTS (SIC 23)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Sewing Machine Operators, Garment	15,090
2.	Sewing Machine Operators, Nongarment	2,500
3.	All Other Helpers, Laborers and Material Movers, Hand	1,350
4.	Pressing Machine Operators and Tenders - Textile, Garment	1,300
5.	All Other Hand Workers	1,140
6.	General Management and Top Executives	1,080
7.	Cutters and Trimmers, Hand	900
8.	Freight, Stock, and Material Movers, Hand	800
9.	Hand Packers and Packagers	760
10.	Traffic, Shipping and Receiving Clerks	740

These 10 Occupational categories make up 72.0% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
APPAREL & OTHER FINISHED PRODUCTS
SIC = 23
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	35,630	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,480	4.15	N/A
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.06	17
PURCHASING MANAGERS	30	0.08	21
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	50	0.14	25
ADMINISTRATIVE SERVICES MANAGERS	30	0.08	35
INDUSTRIAL PRODUCTION MANAGERS	120	0.34	33
GENERAL MANAGERS AND TOP EXECUTIVES	1,080	3.03	15
ALL OTHER MANAGERS AND ADMINISTRATORS	150	0.42	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	480	1.35	N/A
ACCOUNTANTS AND AUDITORS	30	0.08	13
BUDGET ANALYSTS	**	0.00	N/A
ALL OTHER FINANCIAL SPECIALISTS	10	0.03	13
ALL OTHER MANAGEMENT SUPPORT WORKERS	40	0.11	18
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	20	0.06	19
MECHANICAL ENGINEERS	10	0.03	20
DRAFTERS	10	0.03	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.03	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.03	N/A
COMPUTER PROGRAMMER AIDES	10	0.03	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	330	0.93	N/A
SALES AND RELATED OCCUPATIONS	550	1.54	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	30	0.08	27
ALL OTHER SALES AND RELATED WORKERS	520	1.46	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	3,480	9.77	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	70	0.20	15
SECRETARIES	320	0.90	20
STENOGRAPHERS	10	0.03	17
TYPISTS	40	0.11	13
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.03	25
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.03	23
STATISTICAL CLERKS	10	0.03	29
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	600	1.68	28
PAYROLL AND TIMEKEEPING CLERKS	200	0.56	17
BILLING, COST AND RATE CLERKS	60	0.17	21
GENERAL OFFICE CLERKS	580	1.63	21
DATA ENTRY KEYERS, EXCEPT COMPOSING	70	0.20	28
ALL OTHER OFFICE MACHINE OPERATORS	90	0.25	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
APPAREL & OTHER FINISHED PRODUCTS
SIC = 23
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS	20	0.06	18
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	260	0.73	28
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	740	2.08	21
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	70	0.20	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	320	0.90	N/A
SERVICE OCCUPATIONS	50	0.14	N/A
FOOD & BEVERAGE PREPARATION & SERVICE OCCUP.	10	0.03	18
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	330	0.93	15
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	150	0.42	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	29,150	81.81	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	30	0.08	27
SUPERVISORS-PRODUCTION & OPERATING WORKERS	610	1.71	17
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	720	2.02	25
MACHINERY MAINTENANCE MECHANICS, TEXTILE MACH	10	0.03	20
MACHINERY MAINTENANCE MECHANICS, SEWING MACH.	200	0.56	15
ALL OTHER MACHINERY MAINTENANCE MECHANICS	10	0.03	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	60	0.17	29
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	190	0.53	N/A
CARPENTERS	30	0.08	23
MACHINISTS	10	0.03	N/A
ALL OTHER PRECISION METAL WORKERS	10	0.03	N/A
FABRIC, APPAREL PATTERNMAKER, LAYOUT WORKERS	570	1.60	23
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	280	0.79	N/A
ALL OTHER PRECISION WORKERS	10	0.03	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	10	0.03	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	10	0.03	N/A
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	20	0.06	N/A
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	10	0.03	N/A
TEXTILE MACHINE OPERATORS AND TENDERS	250	0.70	15
TEXTILE BLEACHING & DYEING MACH OPER & TENDER	10	0.03	N/A
SEWING MACHINE OPERATORS, GARMENT	15,090	42.35	9
SEWING MACHINE OPERATORS, NON-GARMENT	2,500	7.02	34
PRESSING MACH OPER & TENDERS-TEXTILE, GARMENT	1,300	3.65	22
BOILER OPERATORS AND TENDERS, LOW PRESSURE	10	0.03	14
CUTTING,SLICING MACH SETTER,SET-UP OPERATORS	30	0.08	21
EXTRUDING, FORMING, PRESSING MACHINE SETTERS	10	0.03	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	60	0.17	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	590	1.66	N/A
PRESSERS, HAND	610	1.71	36
CUTTERS AND TRIMMERS, HAND	900	2.53	22

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
APPAREL & OTHER FINISHED PRODUCTS
SIC = 23
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PORTABLE MACHINE CUTTERS	520	1.46	20
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	200	0.56	29
ALL OTHER HAND WORKERS	110	0.31	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	140	0.39	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	20	0.06	18
ALL OTHER MOTOR VEHICLE OPERATORS	30	0.08	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	20	0.06	30
CONVEYOR OPERATORS AND TENDERS	20	0.06	35
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	800	2.25	31
HAND PACKERS AND PACKAGERS	760	2.13	18
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	1,350	3.79	N/A

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MEN'S, YOUTHS' & BOYS' SUITS, & COATS
SIC = 231
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,580	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	110	2.40	N/A
FINANCIAL MANAGERS	10	0.22	11
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.22	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.22	N/A
INDUSTRIAL PRODUCTION MANAGERS	30	0.66	29
GENERAL MANAGERS AND TOP EXECUTIVES	50	1.09	16
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.22	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	60	1.31	N/A
ACCOUNTANTS AND AUDITORS	10	0.22	29
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.44	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	10	0.22	N/A
COMPUTER PROGRAMMERS	10	0.22	16
ALL OTHER MATHEMATICAL SCIENTISTS	**	0.00	N/A
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.22	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.22	20
SALES AND RELATED OCCUPATIONS	50	1.09	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	**	0.00	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	30	0.66	3
ALL OTHER SALES AND RELATED WORKERS	20	0.44	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	300	6.55	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.22	12
SECRETARIES	20	0.44	16
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	40	0.87	5
PROCUREMENT CLERKS	10	0.22	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	20	0.44	11
PAYROLL AND TIMEKEEPING CLERKS	30	0.66	9
BILLING, COST AND RATE CLERKS	10	0.22	20
GENERAL OFFICE CLERKS	30	0.66	6
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.22	N/A
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.44	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	20	0.44	N/A
MARKING CLERKS	10	0.22	18
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	20	0.44	24
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	40	0.87	13
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	30	0.66	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	0.44	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE

OCCUPATIONS OF EMPLOYEES

MEN'S, YOUTHS' & BOYS' SUITS, & COATS

SIC = 231

REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SERVICE OCCUPATIONS	40	0.87	N/A
GUARDS AND WATCH GUARDS	10	0.22	32
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	30	0.66	6
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	4,020	87.77	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	90	1.97	8
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	10	0.22	20
PRECISION INSPECTORS, TESTERS, AND GRADERS	10	0.22	49
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	80	1.75	9
MACHINERY MAINTENANCE MECHANICS, SEWING MACH.	20	0.44	10
ALL OTHER MACHINERY MAINTENANCE MECHANICS	10	0.22	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.22	25
MENDERS-GARMENTS, LINENS, AND RELATED	20	0.44	38
CARPENTERS	10	0.22	N/A
FABRIC, APPAREL PATTERNMAKER, LAYOUT WORKERS	80	1.75	15
CUSTOM TAILORS AND SEWERS	20	0.44	34
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	20	0.44	N/A
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	10	0.22	N/A
SEWING MACHINE OPERATORS, GARMENT	2,560	55.90	5
PRESSING MACH OPER & TENDERS-TEXTILE, GARMENT	320	6.99	6
BOILER OPERATORS AND TENDERS, LOW PRESSURE	10	0.22	15
ALL OTHER MACHINE OPERATORS AND TENDERS	40	0.87	N/A
PRESSERS, HAND	100	2.18	15
SEWERS, HAND	90	1.97	34
CUTTERS AND TRIMMERS, HAND	140	3.06	9
PORTABLE MACHINE CUTTERS	60	1.31	26
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	60	1.31	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	**	0.00	N/A
CONVEYOR OPERATORS AND TENDERS	10	0.22	47
MACHINE FEEDERS AND OFFBEARERS	20	0.44	35
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	40	0.87	40
HAND PACKERS AND PACKAGERS	30	0.66	34
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	150	3.28	46

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
WOMEN'S, MISSES' & JUNIORS' OUTERWEAR
SIC = 233
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	15,170	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	520	3.43	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	450	2.97	33
ALL OTHER MANAGERS AND ADMINISTRATORS	80	0.53	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	230	1.52	N/A
ALL OTHER FINANCIAL SPECIALISTS	10	0.07	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	30	0.20	N/A
ALL OTHER ENGINEERS	10	0.07	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.07	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.07	N/A
ALL OTHER TEACHERS AND INSTRUCTORS	70	0.46	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	100	0.66	N/A
SALES AND RELATED OCCUPATIONS	230	1.52	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	50	0.33	N/A
ALL OTHER SALES AND RELATED WORKERS	180	1.19	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,230	8.11	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	30	0.20	32
ALL OTHER SECRETARIES	110	0.73	N/A
TYPISTS	10	0.07	20
PROCUREMENT CLERKS	10	0.07	28
ALL OTHER OFFICE MACHINE OPERATORS	40	0.26	N/A
ALL OTHER COMMUNICATIONS EQUIPMENT OPERATORS	10	0.07	N/A
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	440	2.90	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	600	3.96	N/A
SERVICE OCCUPATIONS	240	1.58	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	60	0.40	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	10	0.07	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	170	1.12	29
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	12,710	83.78	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	250	1.65	N/A
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	260	1.71	N/A
ALL OTHER MACHINERY MAINTENANCE MECHANICS	60	0.40	N/A
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.07	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	10	0.07	N/A
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	430	2.83	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	20	0.13	N/A
SEWING MACHINE OPERATORS, GARMENT	8,570	56.49	15
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	20	0.13	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	1,120	7.38	N/A

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
WOMEN'S, MISSES' & JUNIORS' OUTERWEAR
SIC = 233
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER HAND WORKERS	1,230	8.11	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	140	0.92	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.07	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	410	2.70	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	170	1.12	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# WOMEN'S AND CHILDREN'S UNDERGARMENTS
SIC = 234
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,310	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	80	3.46	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	30	1.30	16
ALL OTHER MANAGERS AND ADMINISTRATORS	40	1.73	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	30	1.30	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.43	N/A
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.43	47
SALES AND RELATED OCCUPATIONS	20	0.87	N/A
ALL OTHER SALES AND RELATED WORKERS	20	0.87	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	200	8.66	N/A
SECRETARIES	10	0.43	34
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	30	1.30	23
PAYROLL AND TIMEKEEPING CLERKS	20	0.87	13
GENERAL OFFICE CLERKS	30	1.30	24
ALL OTHER OFFICE MACHINE OPERATORS	10	0.43	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.43	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	20	0.87	40
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	40	1.73	15
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	40	1.73	N/A
SERVICE OCCUPATIONS	20	0.87	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	20	0.87	21
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,980	85.71	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	20	0.87	28
MACHINERY MAINTENANCE MECHANICS, SEWING MACH.	20	0.87	15
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.43	43
MENDERS-GARMENTS, LINENS, AND RELATED	10	0.43	37
FABRIC, APPAREL PATTERNMAKER, LAYOUT WORKERS	40	1.73	20
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	10	0.43	N/A
SEWING MACHINE OPERATORS, GARMENT	1,340	58.01	7
PRESSING MACH OPER & TENDERS-TEXTILE, GARMENT	10	0.43	43
ALL OTHER MACHINE OPERATORS AND TENDERS	20	0.87	N/A
CUTTERS AND TRIMMERS, HAND	80	3.46	30
PORTABLE MACHINE CUTTERS	50	2.16	15
ALL OTHER HAND WORKERS	50	2.16	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	40	1.73	34
HAND PACKERS AND PACKAGERS	60	2.60	28
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	120	5.19	29

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISC. APPAREL AND ACCESSORIES
SIC = 238
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,820	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	100	5.49	N/A
FINANCIAL MANAGERS	10	0.55	N/A
PURCHASING MANAGERS	10	0.55	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.55	8
GENERAL MANAGERS AND TOP EXECUTIVES	60	3.30	6
ALL OTHER MANAGERS AND ADMINISTRATORS	20	1.10	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	50	2.75	N/A
ALL OTHER FINANCIAL SPECIALISTS	10	0.55	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	1.10	N/A
ALL OTHER ENGINEERS	**	0.00	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.55	N/A
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.55	7
SALES AND RELATED OCCUPATIONS	60	3.30	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	10	0.55	11
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	40	2.20	14
ALL OTHER SALES AND RELATED WORKERS	10	0.55	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	280	15.38	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.55	N/A
SECRETARIES	20	1.10	14
TYPISTS	10	0.55	20
FILE CLERKS	10	0.55	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	50	2.75	18
PAYROLL AND TIMEKEEPING CLERKS	20	1.10	7
BILLING, COST AND RATE CLERKS	10	0.55	N/A
GENERAL OFFICE CLERKS	40	2.20	10
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.55	20
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.55	20
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	60	3.30	16
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	30	1.65	6
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.55	N/A
SERVICE OCCUPATIONS	50	2.75	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	30	1.65	13
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	20	1.10	8
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,290	70.88	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	60	3.30	9
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	60	3.30	26
MACHINERY MAINTENANCE MECHANICS, SEWING MACH.	20	1.10	9
FABRIC, APPAREL PATTERNMAKER, LAYOUT WORKERS	20	1.10	17

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISC. APPAREL AND ACCESSORIES
SIC = 238
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
CUSTOM TAILORS AND SEWERS	10	0.55	24
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	30	1.65	14
TEXTILE MACHINE OPERATORS AND TENDERS	60	3.30	29
SEWING MACHINE OPERATORS, GARMENT	530	29.12	9
SEWING MACHINE OPERATORS, NON-GARMENT	100	5.49	21
PRESSING MACH OPER & TENDERS-TEXTILE, GARMENT	80	4.40	12
CUTTING, SLICING MACH OPERATORS AND TENDERS	20	1.10	32
PRESSERS, HAND	40	2.20	15
CUTTERS AND TRIMMERS, HAND	80	4.40	12
PORTABLE MACHINE CUTTERS	30	1.65	9
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	10	0.55	22
ALL OTHER HAND WORKERS	10	0.55	20
MACHINE FEEDERS AND OFFBEARERS	20	1.10	33
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	10	0.55	13
HAND PACKERS AND PACKAGERS	70	3.85	18
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	30	1.65	24

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS FABRICATED TEXTILE PRODUCTS
SIC = 239
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	7,230	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	460	6.36	N/A
FINANCIAL MANAGERS	30	0.41	20
PURCHASING MANAGERS	10	0.14	24
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.14	24
ADMINISTRATIVE SERVICES MANAGERS	10	0.14	32
INDUSTRIAL PRODUCTION MANAGERS	20	0.28	16
GENERAL MANAGERS AND TOP EXECUTIVES	350	4.84	12
ALL OTHER MANAGERS AND ADMINISTRATORS	30	0.41	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	90	1.24	N/A
ALL OTHER FINANCIAL SPECIALISTS	**	0.00	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.14	22
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.14	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	10	0.14	27
MECHANICAL ENGINEERS	10	0.14	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.14	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.14	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.14	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	30	0.41	N/A
SALES AND RELATED OCCUPATIONS	80	1.11	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	10	0.14	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	10	0.14	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	30	0.41	17
ALL OTHER SALES AND RELATED WORKERS	30	0.41	27
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	960	13.28	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	20	0.28	16
SECRETARIES	110	1.52	11
TYPISTS	20	0.28	18
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.14	17
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	20	0.28	10
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	110	1.52	10
PAYROLL AND TIMEKEEPING CLERKS	40	0.55	9
BILLING, COST AND RATE CLERKS	10	0.14	31
GENERAL OFFICE CLERKS	260	3.60	19
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	20	0.28	29
DATA ENTRY KEYERS, EXCEPT COMPOSING	30	0.41	21
ALL OTHER OFFICE MACHINE OPERATORS	10	0.14	N/A
SWITCHBOARD OPERATORS	10	0.14	20
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	30	0.41	7
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS	10	0.14	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS FABRICATED TEXTILE PRODUCTS
SIC = 239
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
MARKING CLERKS	10	0.14	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	30	0.41	18
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	190	2.63	9
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	40	0.55	N/A
SERVICE OCCUPATIONS	100	1.38	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	10	0.14	N/A
GUARDS AND WATCH GUARDS	20	0.28	19
FOOD & BEVERAGE PREPARATION & SERVICE OCCUP.	10	0.14	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	60	0.83	15
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.14	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	5,540	76.63	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	160	2.21	11
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	30	0.41	34
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	20	0.28	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	10	0.14	N/A
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	160	2.21	15
MACHINERY MAINTENANCE MECHANICS, SEWING MACH.	70	0.97	9
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	40	0.55	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	40	0.55	N/A
CARPENTERS	20	0.28	21
MACHINISTS	10	0.14	N/A
FABRIC, APPAREL PATTERNMAKER, LAYOUT WORKERS	60	0.83	34
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	10	0.14	N/A
ALL OTHER PRECISION WORKERS	10	0.14	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	10	0.14	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	10	0.14	N/A
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	10	0.14	N/A
PRINTING PRESS MACHINE OPERATORS AND TENDERS	10	0.14	N/A
TEXTILE MACHINE SETTERS AND SET-UP OPERATORS	20	0.28	N/A
TEXTILE MACHINE OPERATORS AND TENDERS	130	1.80	10
TEXTILE BLEACHING & DYEING MACH OPER & TENDER	10	0.14	N/A
SEWING MACHINE OPERATORS, GARMENT	480	6.64	17
SEWING MACHINE OPERATORS, NON-GARMENT	1,820	25.17	12
CUTTING,SLICING MACH SETTER,SET-UP OPERATORS	20	0.28	28
CUTTING, SLICING MACH OPERATORS AND TENDERS	30	0.41	28
EXTRUDING, FORMING, PRESSING MACHINE SETTERS	10	0.14	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	400	5.53	N/A
PRESSERS, HAND	20	0.28	35

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS FABRICATED TEXTILE PRODUCTS
SIC = 239
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
CUTTERS AND TRIMMERS, HAND	150	2.07	23
PORTABLE MACHINE CUTTERS	90	1.24	24
ALL OTHER HAND WORKERS	330	4.56	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	10	0.14	20
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.14	20
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	10	0.14	13
CONVEYOR OPERATORS AND TENDERS	10	0.14	35
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	290	4.01	15
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	50	0.69	N/A
HAND PACKERS AND PACKAGERS	350	4.84	15
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	620	8.58	29

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

This major group includes logging camps, sawmills, lath mills, shingle mills, planing mills, plywood mills, veneer mills and establishments engaged in manufacturing finished articles made entirely or mainly of wood or wood substitutes (excluding furniture, musical instruments, toys).

The 1983 employment level in this industry has fallen 7 percent since the 1980 survey.

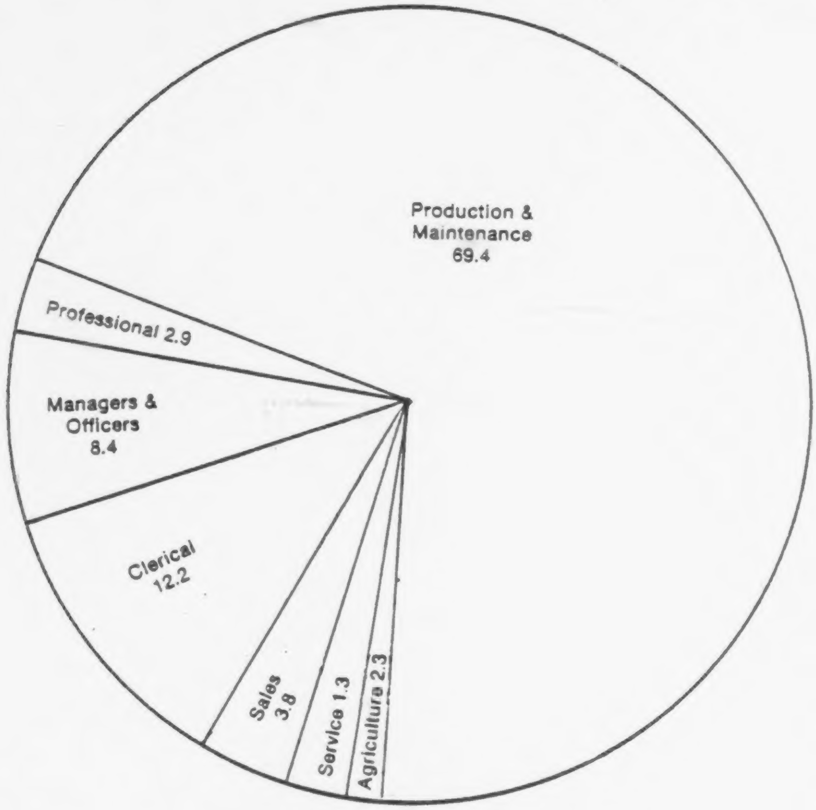
PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

	24	243	249
TOTAL	100%	100%	100%
Managerial & Admin.	8.39	8.84	8.08
Prof., & Tech., Occs.	2.94	2.04	3.54
Sales Occs.	3.77	6.12	2.53
Clerical Occs.	12.16	11.56	13.13
Service Occs.	1.26	1.36	1.52
Agricultural Occs.	2.31	--	--
Prod. & Maint. Occ.	69.39	70.07	70.71

Production and Maintenance Occupations, with 69 percent of the total employment, dominate the industry. Within this category, various machine operators and tenders represent one third of the workforce with cabinetmakers, and bench carpenters accounting for another 14 percent of the employment.

LUMBER AND WOOD PRODUCTS (SIC 24)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Cabinetmakers and Bench Carpenters	470
2.	General Managers and Top Executives	330
3.	Woodworking Machine Operators, and Tenders except Sawing	280
4.	Assemblers and Fabricators except Machine, Electrical, Electronic, and Precision	250
5.	Wood Machinists	230
6.	Supervisors, Production and Operating Workers	170
7.	Machine Feeders and Offbearers	170
8.	Sawing Machine Operators and Tenders	160
9.	Secretaries	140
10.	Carpenters	140

These 10 occupational categories make up 49.1% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
LUMBER AND WOOD PRODUCTS
SIC = 24
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,770	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	400	8.39	N/A
PURCHASING MANAGERS	0	0.00	25
GENERAL MANAGERS AND TOP EXECUTIVES	330	6.92	4
ALL OTHER MANAGERS AND ADMINISTRATORS	70	1.47	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	140	2.94	N/A
ACCOUNTANTS AND AUDITORS	30	0.63	11
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	20	0.42	19
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.21	20
COST ESTIMATORS	10	0.21	22
MECHANICAL ENGINEERS	10	0.21	35
DRAFTERS	40	0.84	16
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	20	0.42	N/A
SALES AND RELATED OCCUPATIONS	180	3.77	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	40	0.84	16
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	130	2.73	11
ALL OTHER SALES AND RELATED WORKERS	10	0.21	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	580	12.16	N/A
SECRETARIES	140	2.94	8
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	120	2.52	6
PAYROLL AND TIMEKEEPING CLERKS	10	0.21	20
GENERAL OFFICE CLERKS	120	2.52	9
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.21	25
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.21	31
SWITCHBOARD OPERATORS	10	0.21	35
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	90	1.89	9
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	70	1.47	N/A
SERVICE OCCUPATIONS	60	1.26	N/A
GUARDS AND WATCH GUARDS	10	0.21	12
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	50	1.05	11
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	110	2.31	N/A
SUPERVISORS-AGRICULTURAL,FOR.FISH.& REL OCCUP	10	0.21	30
FALLERS AND BUCKERS	20	0.42	23
LOG HANDLING EQUIPMENT OPERATORS	30	0.63	20
LOGGING TRACTOR OPERATORS	20	0.42	27
LOG GRADERS AND SCALERS	20	0.42	19
ALL OTHER AGRIC,FOR,FISH, & RELATED WORKERS	10	0.21	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,310	69.39	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	170	3.56	8
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	40	0.84	15

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
LUMBER AND WOOD PRODUCTS
SIC = 24
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
MACHINERY MAINTENANCE MECHANICS	10	0.21	15
MACHINERY MAINTENANCE WORKERS	20	0.42	14
MAINTENANCE REPAIRERS, GENERAL UTILITY	60	1.26	10
CARPENTERS	140	2.94	16
ALL OTHER PRECISION METAL WORKERS	30	0.63	N/A
WOOD MACHINISTS	230	4.82	14
CABINETMAKERS AND BENCH CARPENTERS	470	9.85	12
ALL OTHER PRECISION WORKERS	30	0.63	N/A
WELDING MACHINE OPERATORS AND TENDERS	10	0.21	35
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	30	0.63	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	120	2.52	N/A
SAWING MACHINE SETTERS AND SET-UP OPERATORS	60	1.26	13
HEAD SAWYERS	40	0.84	11
SAWING MACHINE OPERATORS AND TENDERS	160	3.35	11
WOODWORK MACH SETTER, SET-UP OPER EXC SAWING	140	2.94	20
WOODWORKING MACHINE OPER, TENDERS EXC SAWING	280	5.87	16
FURNACE, KILN, OVEN, DRIER, KETTLE OPERATORS	10	0.21	N/A
CUTTING, SLICING MACH OPERATORS AND TENDERS	20	0.42	28
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	30	0.63	25
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	90	1.89	18
CEMENTING & GLUING MACHINE OPERATOR & TENDERS	70	1.47	21
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	10	0.21	31
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	10	0.21	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	10	0.21	N/A
SOLDERERS AND BRAZERS	10	0.21	31
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	250	5.24	15
ALL OTHER HAND WORKERS	60	1.26	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	130	2.73	7
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	80	1.68	8
CONSTRUCTION TRADES, EXTRACTIVE WORKER HELPER	40	0.84	20
MACHINE FEEDERS AND OFFBEARERS	170	3.56	11
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	140	2.94	18
HAND PACKERS AND PACKAGERS	110	2.31	14
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	20	0.42	N/A

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MILLWORK, PLYWOOD & STRUCTURAL MEMBERS
SIC = 243
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,470	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	130	8.84	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	130	8.84	4
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	30	2.04	N/A
ACCOUNTANTS AND AUDITORS	10	0.68	29
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.68	N/A
DRAFTERS	10	0.68	27
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.68	N/A
SALES AND RELATED OCCUPATIONS	90	6.12	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	20	1.36	24
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	60	4.08	16
ALL OTHER SALES AND RELATED WORKERS	10	0.68	33
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	170	11.56	N/A
SECRETARIES	50	3.40	11
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	40	2.72	8
GENERAL OFFICE CLERKS	40	2.72	11
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	30	2.04	13
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.68	N/A
SERVICE OCCUPATIONS	20	1.36	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	10	0.68	17
ALL OTHER SERVICE WORKERS	10	0.68	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,030	70.07	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	40	2.72	11
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	10	0.68	28
MACHINERY MAINTENANCE MECHANICS	10	0.68	28
MACHINERY MAINTENANCE WORKERS	10	0.68	22
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.68	25
CARPENTERS	50	3.40	28
WOOD MACHINISTS	90	6.12	15
CABINETMAKERS AND BENCH CARPENTERS	360	24.49	11
ALL OTHER PRECISION WORKERS	10	0.68	N/A
SAWING MACHINE SETTERS AND SET-UP OPERATORS	30	2.04	21
SAWING MACHINE OPERATORS AND TENDERS	20	1.36	28
WOODWORK MACH SETTER, SET-UP OPER EXC SAWING	60	4.08	29
WOODWORKING MACHINE OPER, TENDERS EXC SAWING	40	2.72	25
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	10	0.68	28
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	30	2.04	20
ALL OTHER MACHINE OPERATORS AND TENDERS	30	2.04	N/A
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	80	5.44	35

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MILLWORK, PLYWOOD & STRUCTURAL MEMBERS
SIC = 243
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	50	3.40	12
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	10	0.68	20
CONSTRUCTION TRADES, EXTRACTIVE WORKER HELPER	10	0.68	23
MACHINE FEEDERS AND OFFBEARERS	40	2.72	26
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	30	2.04	28
HAND PACKERS AND PACKAGERS	20	1.36	34

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS WOOD PRODUCTS
SIC = 249
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,980	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	160	8.08	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	100	5.05	12
ALL OTHER MANAGERS AND ADMINISTRATORS	60	3.03	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	70	3.54	N/A
ACCOUNTANTS AND AUDITORS	20	1.01	19
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	20	1.01	23
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.51	20
ALL OTHER MANAGEMENT SUPPORT WORKERS	**	0.00	N/A
MECHANICAL ENGINEERS	10	0.51	35
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.51	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.51	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	**	0.00	N/A
SALES AND RELATED OCCUPATIONS	50	2.53	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	40	2.02	21
ALL OTHER SALES AND RELATED WORKERS	10	0.51	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	260	13.13	N/A
SECRETARIES	50	2.53	18
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	40	2.02	13
PAYROLL AND TIMEKEEPING CLERKS	10	0.51	20
GENERAL OFFICE CLERKS	40	2.02	18
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.51	25
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.51	31
SWITCHBOARD OPERATORS	10	0.51	35
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	50	2.53	15
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.51	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	50	2.53	N/A
SERVICE OCCUPATIONS	30	1.52	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	20	1.01	16
ALL OTHER SERVICE WORKERS	10	0.51	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,400	70.71	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	80	4.04	16
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.51	N/A
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	10	0.51	N/A
ALL OTHER MACHINERY MAINTENANCE MECHANICS	10	0.51	N/A
MACHINERY MAINTENANCE WORKERS	10	0.51	29
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	1.52	14
ALL OTHER CONSTRUCTION TRADES WORKERS	20	1.01	N/A
ALL OTHER PRECISION METAL WORKERS	30	1.52	N/A
ALL OTHER PRECISION WOODWORKERS	160	8.08	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS WOOD PRODUCTS
SIC = 249
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER PRECISION WORKERS	30	1.52	34
WELDING MACHINE OPERATORS AND TENDERS	10	0.51	35
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	50	2.53	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	110	5.56	N/A
SAWING MACHINE SETTERS AND SET-UP OPERATORS	10	0.51	26
SAWING MACHINE OPERATORS AND TENDERS	50	2.53	27
WOODWORKING MACHINE OPER, TENDERS EXC SAWING	190	9.60	23
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	60	3.03	26
CEMENTING & GLUING MACHINE OPERATOR & TENDERS	60	3.03	25
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	60	3.03	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	20	1.01	N/A
SOLDERERS AND BRAZERS	10	0.51	31
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	160	8.08	17
ALL OTHER HAND WORKERS	60	3.03	34
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	10	0.51	31
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	20	1.01	24
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	30	1.52	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	70	3.54	32
HAND PACKERS AND PACKAGERS	60	3.03	19

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

SIC 251 and 254

The industry group, Furniture and Fixtures, (SIC 25), includes establishments engaged in manufacturing household, office, public building, and restaurant furniture; and office and store fixtures. Due to the quality of the survey response, occupational distributions are published for only 2 of the five 3-digit industries that comprise this SIC. The two industrial sectors for which occupational profiles were constructed and published are Household Furniture (SIC 251) and Partitions and Fixtures (SIC 254).

The three industrial segments which failed to meet the requisite criteria for publication were the following: Office Furniture (SIC 252); Public Building and Related Furniture (SIC 253); and Miscellaneous Furniture and Fixtures (SIC 259).

The Production, Construction, and Maintenance occupational category is the largest in both SIC 251 and SIC 254. In SIC 251, this occupational grouping accounts for 3,920 jobs or approximately 81 percent of total employment. In SIC 254, the same grouping accounts for 790 jobs or approximately 74 percent of total employment.

In SIC 251, the largest employment in the Production, Construction, and Maintenance group is found in the assembler and fabricator occupation with 660, approximately 17 percent of the total of this category. In SIC 254, the occupation with the largest employment in this same occupational category is also the assembler and fabricator, with 170 or approximately 22 percent of the total employment in this group.

TABLE
OCCUPATIONS OF EMPLOYEES
HOUSEHOLD FURNITURE
SIC = 251
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,840	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	220	4.55	N/A
FINANCIAL MANAGERS	10	0.21	24
INDUSTRIAL PRODUCTION MANAGERS	10	0.21	30
GENERAL MANAGERS AND TOP EXECUTIVES	190	3.93	9
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.21	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	50	1.03	N/A
ACCOUNTANTS AND AUDITORS	20	0.41	23
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.21	33
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.21	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.21	N/A
SALES AND RELATED OCCUPATIONS	140	2.89	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	100	2.07	25
ALL OTHER SALES AND RELATED WORKERS	40	0.83	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	440	9.09	N/A
SECRETARIES	80	1.65	13
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	10	0.21	25
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	80	1.65	14
PAYROLL AND TIMEKEEPING CLERKS	10	0.21	16
BILLING, COST AND RATE CLERKS	10	0.21	17
GENERAL OFFICE CLERKS	110	2.27	18
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.21	25
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.21	28
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	90	1.86	16
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.21	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.21	N/A
SERVICE OCCUPATIONS	70	1.45	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	10	0.21	N/A
GUARDS AND WATCH GUARDS	10	0.21	24
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	50	1.03	25
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,920	80.99	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	220	4.55	12
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	10	0.21	N/A
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	50	1.03	22
MACHINERY MAINTENANCE MECHANICS	10	0.21	35
MAINTENANCE REPAIRERS, GENERAL UTILITY	60	1.24	N/A
CARPENTERS	10	0.21	33
WOOD MACHINISTS	310	6.40	19
CABINETMAKERS AND BENCH CARPENTERS	280	5.79	28
ALL OTHER PRECISION WOODWORKERS	70	1.45	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
HOUSEHOLD FURNITURE
SIC = 251
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
UPHOLSTERERS	250	5.17	21
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	10	0.21	N/A
ALL OTHER PRECISION WORKERS	20	0.41	N/A
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	20	0.41	35
MACH FORMING OPER & TENDERS, METAL & PLASTIC	90	1.86	36
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	10	0.21	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	10	0.21	N/A
SAWING MACHINE SETTERS AND SET-UP OPERATORS	10	0.21	25
SAWING MACHINE OPERATORS AND TENDERS	190	3.93	18
WOODWORK MACH SETTER, SET-UP OPER EXC SAWING	160	3.31	19
WOODWORKING MACHINE OPER, TENDERS EXC SAWING	230	4.75	23
TEXTILE MACHINE OPERATORS AND TENDERS	60	1.24	33
SEWING MACHINE OPERATORS, NON-GARMENT	220	4.55	16
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	150	3.10	21
CEMENTING & GLUING MACHINE OPERATOR & TENDERS	40	0.83	23
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	30	0.62	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	20	0.41	N/A
CUTTERS AND TRIMMERS, HAND	70	1.45	25
PAINTING, COATING & DECORATING WORKERS- HAND	80	1.65	35
GRINDING & POLISHING WORKERS, HAND	60	1.24	27
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	660	13.64	14
ALL OTHER HAND WORKERS	100	2.07	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	120	2.48	26
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	20	0.41	25
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	20	0.41	N/A
MACHINE FEEDERS AND OFFBEARERS	40	0.83	29
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	90	1.86	18
HAND PACKERS AND PACKAGERS	40	0.83	22
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	80	1.65	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# PARTITIONS AND FIXTURES
SIC = 254
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,070	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	70	6.54	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	60	5.61	7
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.93	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	30	2.80	N/A
ACCOUNTANTS AND AUDITORS	10	0.93	10
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.93	N/A
DRAFTERS	10	0.93	35
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.93	N/A
SALES AND RELATED OCCUPATIONS	60	5.61	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	10	0.93	35
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	30	2.80	20
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	30	2.80	25
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	130	12.15	N/A
SECRETARIES	30	2.80	10
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	30	2.80	10
GENERAL OFFICE CLERKS	30	2.80	12
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.93	32
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	20	1.87	18
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	1.87	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	790	73.83	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	50	4.67	15
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	10	0.93	33
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.93	11
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.93	N/A
CARPENTERS	30	2.80	23
WOOD MACHINISTS	20	1.87	32
CABINETMAKERS AND BENCH CARPENTERS	100	9.35	13
ALL OTHER PRECISION WORKERS	10	0.93	N/A
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	30	2.80	15
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	50	4.67	27
SHEAR,SLITTER MACHINE SETTER & SET-UP OPER.	10	0.93	35
MACH FORMING OPER & TENDERS, METAL & PLASTIC	40	3.74	26
WELDING MACHINE OPERATORS AND TENDERS	10	0.93	32
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	10	0.93	N/A
SAWING MACHINE OPERATORS AND TENDERS	30	2.80	46
WOODWORKING MACHINE OPER, TENDERS EXC SAWING	10	0.93	43

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PARTITIONS AND FIXTURES
SIC = 254
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	20	1.87	24
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	10	0.93	28
CEMENTING & GLUING MACHINE OPERATOR & TENDERS	20	1.87	35
WELDERS AND CUTTERS	30	2.80	49
PAINTING, COATING & DECORATING WORKERS- HAND	10	0.93	45
GRINDING & POLISHING WORKERS, HAND	20	1.87	28
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	170	15.89	31
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	10	0.93	17
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.93	29
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	10	0.93	44
MACHINE FEEDERS AND OFFBEARERS	10	0.93	47
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	10	0.93	28
HAND PACKERS AND PACKAGERS	20	1.87	32
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	60	5.61	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

SIC 26

This major group includes the manufacture of pulp from wood and other cellulose fibers, and from rags; the manufacture of paper and paperboard; and the manufacture of paper and paperboard into converted products such as coated paper, bags, boxes and envelopes.

Over the three year time frame, 1980-1983, employment in this industry has fallen by 2,400 from 28,200 to 25,800, a percentage decline of -0.7. Although the employment decline has been persistent from 1980-1983, within the paper industry, it is uncomparable to the percentage decline of -16.7 percent for the nondurables group.

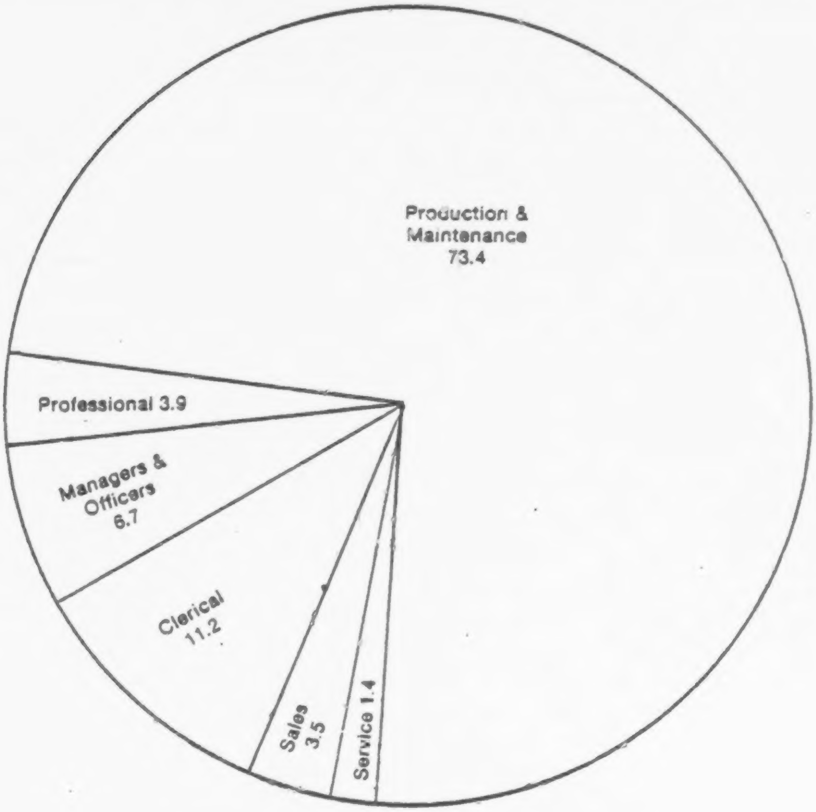
PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

	26	262	265
TOTAL	100%	100%	100%
Managerial & Administrative	6.68	7.16	4.81
Profess., Paraprofess., Tech.	3.90	5.93	2.34
Sales and Related	3.51	2.86	4.68
Clerical & Admin. Support	11.21	11.04	10.79
Service	1.44	1.43	1.04
Prod., Construction & Maint.	73.37	71.57	76.33

This industry is labor intensive as demonstrated by 73.4 percent of the industry's jobs being located in the Production, Construction and Maintenance occupations.

PAPER AND ALLIED PRODUCTS (SIC 26)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	All Other Helpers, Laborers, and Material Movers, Hand	3,230
2.	All Other Machine Operators and Tenders	2,900
3.	Paper Goods Machine Setters, and Set-up Operators	2,430
4.	All Other Machine Setters and Set-up Operators	1,160
5.	Printing, Press Machine Operators and Tenders	1,030
6.	Cutting and Slicing Machine Operators and Tenders	1,030
7.	Supervisors, Production and Operating Workers	1,020
8.	General Managers and Top Executives	960
9.	All Other Hand Workers	860
10.	Sales Representatives, except Scientific and Retail	660

These 10 occupational categories make up 59.7% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
PAPER AND ALLIED PRODUCTS
SIC = 26
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	25,610	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,710	6.68	N/A
PURCHASING MANAGERS	50	0.20	35
INDUSTRIAL PRODUCTION MANAGERS	190	0.74	33
GENERAL MANAGERS AND TOP EXECUTIVES	960	3.75	22
ALL OTHER MANAGERS AND ADMINISTRATORS	510	1.99	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	1,000	3.90	N/A
ALL OTHER FINANCIAL SPECIALISTS	170	0.66	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	100	0.39	29
COST ESTIMATORS	40	0.16	23
ALL OTHER MANAGEMENT SUPPORT WORKERS	80	0.31	N/A
MECHANICAL ENGINEERS	40	0.16	33
ALL OTHER ENGINEERS	120	0.47	N/A
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	10	0.04	22
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	150	0.59	N/A
ALL OTHER PHYSICAL SCIENTISTS	40	0.16	N/A
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	10	0.04	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	240	0.94	N/A
SALES AND RELATED OCCUPATIONS	900	3.51	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	70	0.27	34
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	660	2.58	26
ALL OTHER SALES AND RELATED WORKERS	170	0.66	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	2,870	11.21	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	120	0.47	26
SECRETARIES	420	1.64	20
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	90	0.35	32
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	460	1.80	27
PAYROLL AND TIMEKEEPING CLERKS	80	0.31	27
BILLING, COST AND RATE CLERKS	100	0.39	34
GENERAL OFFICE CLERKS	420	1.64	24
ALL OTHER OFFICE MACHINE OPERATORS	100	0.39	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	130	0.51	31
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS	20	0.08	25
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	110	0.43	25
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	550	2.15	20
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	20	0.08	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	250	0.98	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PAPER AND ALLIED PRODUCTS
SIC = 26
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SERVICE OCCUPATIONS	370	1.44	N/A
GUARDS AND WATCH GUARDS	40	0.16	24
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	250	0.98	30
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	20	0.08	N/A
ALL OTHER SERVICE WORKERS	60	0.23	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	18,790	73.37	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	90	0.35	32
SUPERVISORS-PRODUCTION & OPERATING WORKERS	1,020	3.98	17
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	430	1.68	24
MACHINERY MAINT MECHANIC, WATER OR POWER GEN.	140	0.55	33
ALL OTHER MACHINERY MAINTENANCE MECHANICS	170	0.66	N/A
MILLWRIGHTS	160	0.62	31
MAINTENANCE REPAIRERS, GENERAL UTILITY	600	2.34	33
AUTOMOTIVE MECHANICS	10	0.04	20
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	10	0.04	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	110	0.43	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	240	0.94	N/A
MACHINISTS	60	0.23	35
ALL OTHER PRECISION METAL WORKERS	60	0.23	N/A
ALL OTHER PRECISION WORKERS	20	0.08	N/A
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	550	2.15	N/A
PRINTING PRESS MACHINE OPERATORS AND TENDERS	1,030	4.02	33
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	190	0.74	N/A
PAPER GOODS MACHINE SETTERS, SET-UP OPERATORS	2,430	9.49	34
BOILER OPERATORS AND TENDERS, LOW PRESSURE	140	0.55	28
CHEMICAL EQUIPMENT CONTROLLERS AND OPERATORS	40	0.16	26
CUTTING, SLICING MACH OPERATORS AND TENDERS	1,030	4.02	27
CEMENTING & GLUING MACHINE OPERATOR & TENDERS	510	1.99	19
CLEAN,WASH,PICKLING EQUIP OPERATORS & TENDERS	10	0.04	20
SEPARATING,FILTERING & STILL MACHINE OPERATOR	10	0.04	25
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	550	2.15	25
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	1,160	4.53	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	2,900	11.32	N/A
ALL OTHER HAND WORKERS	860	3.36	N/A
LIQUID WASTE TREATMENT PLANT & SYSTEM OPER.	20	0.08	15
ALL OTHER PLANT AND SYSTEM OPERATORS	70	0.27	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PAPER AND ALLIED PRODUCTS
SIC = 26
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	260	1.02	22
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	60	0.23	34
CRANE AND TOWER OPERATORS	20	0.08	5
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	540	2.11	25
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	30	0.12	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	3,230	12.61	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PAPER MILLS
SIC = 262
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,890	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	350	7.16	N/A
FINANCIAL MANAGERS	30	0.61	16
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.41	7
PURCHASING MANAGERS	10	0.20	15
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	30	0.61	8
ADMINISTRATIVE SERVICES MANAGERS	10	0.20	33
INDUSTRIAL PRODUCTION MANAGERS	80	1.64	21
GENERAL MANAGERS AND TOP EXECUTIVES	100	2.04	7
ALL OTHER MANAGERS AND ADMINISTRATORS	70	1.43	17
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	290	5.93	N/A
ACCOUNTANTS AND AUDITORS	40	0.82	12
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	20	0.41	10
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.20	11
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.41	N/A
CHEMICAL ENGINEERS	30	0.61	20
ELECTRICAL AND ELECTRONIC ENGINEERS	10	0.20	11
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	10	0.20	8
MECHANICAL ENGINEERS	20	0.41	13
ALL OTHER ENGINEERS	10	0.20	N/A
DRAFTERS	10	0.20	28
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	0.41	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	10	0.20	15
ALL OTHER PHYSICAL SCIENTISTS	10	0.20	35
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	40	0.82	17
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.20	20
COMPUTER PROGRAMMERS	10	0.20	N/A
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	10	0.20	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.20	N/A
SALES AND RELATED OCCUPATIONS	140	2.86	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	50	1.02	11
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	20	0.41	45
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	50	1.02	15
ALL OTHER SALES AND RELATED WORKERS	20	0.41	12
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	540	11.04	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	70	1.43	5
SECRETARIES	70	1.43	13
STENOGRAPHERS	10	0.20	14
RECEPTIONIST AND INFORMATION CLERKS	10	0.20	24
TYPISTS	10	0.20	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PAPER MILLS
SIC = 262
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.20	24
FILE CLERKS	10	0.20	14
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	20	0.41	19
PROCUREMENT CLERKS	10	0.20	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	40	0.82	10
PAYROLL AND TIMEKEEPING CLERKS	20	0.41	8
BILLING, COST AND RATE CLERKS	30	0.61	19
GENERAL OFFICE CLERKS	20	0.41	12
BILLING, POSTING, CALCULATING MACH. OPERATORS	10	0.20	33
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.20	18
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.20	N/A
SWITCHBOARD OPERATORS	20	0.41	12
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	30	0.61	5
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS	10	0.20	27
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	60	1.23	16
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	60	1.23	9
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.20	32
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.20	N/A
SERVICE OCCUPATIONS	70	1.43	N/A
GUARDS AND WATCH GUARDS	30	0.61	12
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	40	0.82	7
ALL OTHER SERVICE WORKERS	10	0.20	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,500	71.57	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	20	0.41	18
SUPERVISORS-PRODUCTION & OPERATING WORKERS	180	3.68	9
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	10	0.20	N/A
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	10	0.20	48
PRECISION INSPECTORS, TESTERS, AND GRADERS	20	0.41	21
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	140	2.86	5
MACHINERY MAINT MECHANIC, WATER OR POWER GEN.	40	0.82	29
ALL OTHER MACHINERY MAINTENANCE MECHANICS	20	0.41	N/A
MILLWRIGHTS	110	2.25	10
MACHINERY MAINTENANCE WORKERS	50	1.02	37
MAINTENANCE REPAIRERS, GENERAL UTILITY	120	2.45	16
PRECISION INSTRUMENT REPAIRERS	20	0.41	13
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	10	0.20	N/A
ELECTRICIANS	60	1.23	7
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	10	0.20	17
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	40	0.82	7
MACHINISTS	10	0.20	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PAPER MILLS
SIC = 262
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER PRECISION METAL WORKERS	10	0.20	N/A
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	90	1.84	N/A
PAPER GOODS MACHINE SETTERS, SET-UP OPERATORS	160	3.27	30
BOILER OPERATORS AND TENDERS, LOW PRESSURE	80	1.64	12
CHEMICAL EQUIPMENT CONTROLLERS AND OPERATORS	40	0.82	26
CHEMICAL EQUIPMENT TENDERS	30	0.61	N/A
CUTTING,SLICING MACH SETTER,SET-UP OPERATORS	50	1.02	31
CUTTING, SLICING MACH OPERATORS AND TENDERS	180	3.68	21
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	20	0.41	35
CEMENTING & GLUING MACHINE OPERATOR & TENDERS	10	0.20	33
CLEAN,WASH,PICKLING EQUIP OPERATORS & TENDERS	10	0.20	20
SEPARATING,FILTERING & STILL MACHINE OPERATOR	10	0.20	25
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	180	3.68	12
EXTRUDING, FORMING, PRESSING MACHINE OPERATOR	30	0.61	34
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	60	1.23	5
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	90	1.84	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	910	18.61	12
WELDERS AND CUTTERS	10	0.20	N/A
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	20	0.41	5
ALL OTHER HAND WORKERS	70	1.43	N/A
LIQUID WASTE TREATMENT PLANT & SYSTEM OPER.	20	0.41	15
STATIONARY ENGINEERS	30	0.61	24
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	20	0.41	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.20	12
CRANE AND TOWER OPERATORS	20	0.41	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	100	2.04	11
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	10	0.20	N/A
MACHINE FEEDERS AND OFFBEARERS	40	0.82	45
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	80	1.64	7
HAND PACKERS AND PACKAGERS	110	2.25	22
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	180	3.68	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PAPERBOARD CONTAINERS AND BOXES
SIC = 265
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	7,690	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	370	4.81	N/A
FINANCIAL MANAGERS	20	0.26	9
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.13	12
PURCHASING MANAGERS	10	0.13	13
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	20	0.26	11
ADMINISTRATIVE SERVICES MANAGERS	10	0.13	19
INDUSTRIAL PRODUCTION MANAGERS	60	0.78	16
GENERAL MANAGERS AND TOP EXECUTIVES	240	3.12	19
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.13	26
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	180	2.34	N/A
ACCOUNTANTS AND AUDITORS	30	0.39	37
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	20	0.26	26
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.13	N/A
COST ESTIMATORS	30	0.39	14
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.13	28
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	10	0.13	47
MECHANICAL ENGINEERS	10	0.13	17
ALL OTHER ENGINEERS	10	0.13	25
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	10	0.13	35
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.13	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.13	18
DESIGNERS, EXCEPT INTERIOR DESIGNERS	20	0.26	23
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.13	N/A
SALES AND RELATED OCCUPATIONS	360	4.68	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	20	0.26	15
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	300	3.90	12
ALL OTHER SALES AND RELATED WORKERS	50	0.65	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	830	10.79	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	20	0.26	25
SECRETARIES	110	1.43	23
RECEPTIONIST AND INFORMATION CLERKS	20	0.26	28
TYPISTS	10	0.13	30
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.13	41
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.13	N/A
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	50	0.65	15
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	110	1.43	17
PAYROLL AND TIMEKEEPING CLERKS	20	0.26	41
BILLING, COST AND RATE CLERKS	30	0.39	13
GENERAL OFFICE CLERKS	170	2.21	22

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PAPERBOARD CONTAINERS AND BOXES
SIC = 265
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.13	20
SWITCHBOARD OPERATORS	10	0.13	12
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	40	0.52	11
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	30	0.39	26
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	160	2.08	15
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	30	0.39	94
SERVICE OCCUPATIONS	80	1.04	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	30	0.39	27
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	50	0.65	23
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	5,870	76.33	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	10	0.13	24
SUPERVISORS-CCNSTRUCTION & EXTRACTIVE WORKERS	10	0.13	46
SUPERVISORS-PRODUCTION & OPERATING WORKERS	320	4.16	14
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	10	0.13	20
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	10	0.13	26
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	180	2.34	39
MACHINERY MAINT MECHANIC, WATER OR POWER GEN.	50	0.65	47
ALL OTHER MACHINERY MAINTENANCE MECHANICS	50	0.65	14
MAINTENANCE REPAIRERS, GENERAL UTILITY	180	2.34	19
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.13	N/A
CARPENTERS	10	0.13	33
ELECTRICIANS	10	0.13	11
TOOL AND DIE MAKERS	40	0.52	14
MACHINISTS	20	0.26	34
BOILERMAKERS	10	0.13	45
PRECISION COMPOSITORS, TYPESETTERS, ARRANGERS	10	0.13	40
ALL OTHER PRECISION WORKERS	10	0.13	22
PRINTING PRESS MACHINE SETTER,SET-UP OPERATOR	90	1.17	17
PHOTOENGRAVING AND LITHOGRAPHING PHOTOGRAPHER	10	0.13	22
SPEC MATERIALS PRINT MACH SETTER,SET-UP OPER	80	1.04	22
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	10	0.13	32
PRINTING PRESS MACHINE OPERATORS AND TENDERS	400	5.20	26
PHOTOENGRAVING,LITHO MACH OPERATORS & TENDERS	10	0.13	35
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	10	0.13	40
PAPER GOODS MACHINE SETTERS, SET-UP OPERATORS	720	9.36	14
BOILER OPERATORS AND TENDERS, LOW PRESSURE	10	0.13	22
CUTTING,SLICING MACH SETTER,SET-UP OPERATORS	130	1.69	31
CUTTING, SLICING MACH OPERATORS AND TENDERS	430	5.59	21
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	10	0.13	39

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PAPERBOARD CONTAINERS AND BOXES
SIC = 265
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	130	1.69	30
CEMENTING & GLUING MACHINE OPERATOR & TENDERS	420	5.46	19
EXTRUDING, FORMING, PRESSING MACHINE OPERATOR	20	0.26	29
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	450	5.85	28
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	110	1.43	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	110	1.43	N/A
CUTTERS AND TRIMMERS, HAND	90	1.17	34
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	210	2.73	23
ALL OTHER HAND WORKERS	40	0.52	24
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	200	2.60	20
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	30	0.39	35
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	150	1.95	21
CONVEYOR OPERATORS AND TENDERS	10	0.13	22
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	10	0.13	N/A
MECHANIC AND REPAIRER HELPERS	30	0.39	38
MACHINE FEEDERS AND OFFBEARERS	470	6.11	19
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	150	1.95	26
HAND PACKERS AND PACKAGERS	250	3.25	26
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	170	2.21	20

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

SIC 27

This major group encompasses establishments engaged in printing, bookbinding, typesetting, and engraving; and the publishing of books, periodicals and newspapers. Printing and publishing once again is the largest employer in the nondurable goods sector, leading apparel, the second largest, by 25 percent. This industry is the only nondurable goods industry to gain employment since the 1980 survey, rising 7.7 percent in contrast to the drop of 16.7 percent in the nondurable goods sector.

PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

	27	271	272	273	275	279
TOTAL	100%	100%	100%	100%	100%	100%
Managerial & Admin. Occs.	7.50	7.52	10.15	8.39	7.27	7.56
Pro. Tech. Occs.	11.35	20.65	25.56	10.91	4.07	6.72
Sales Occs.	7.29	11.80	13.53	3.86	4.50	6.72
Clerical Occs.	22.10	21.90	40.23	26.01	18.55	46.22
Service Occs.	1.51	2.43	--	1.51	1.17	--
Prod. & Main. Occs.	50.22	35.77	10.15	49.33	64.51	33.61

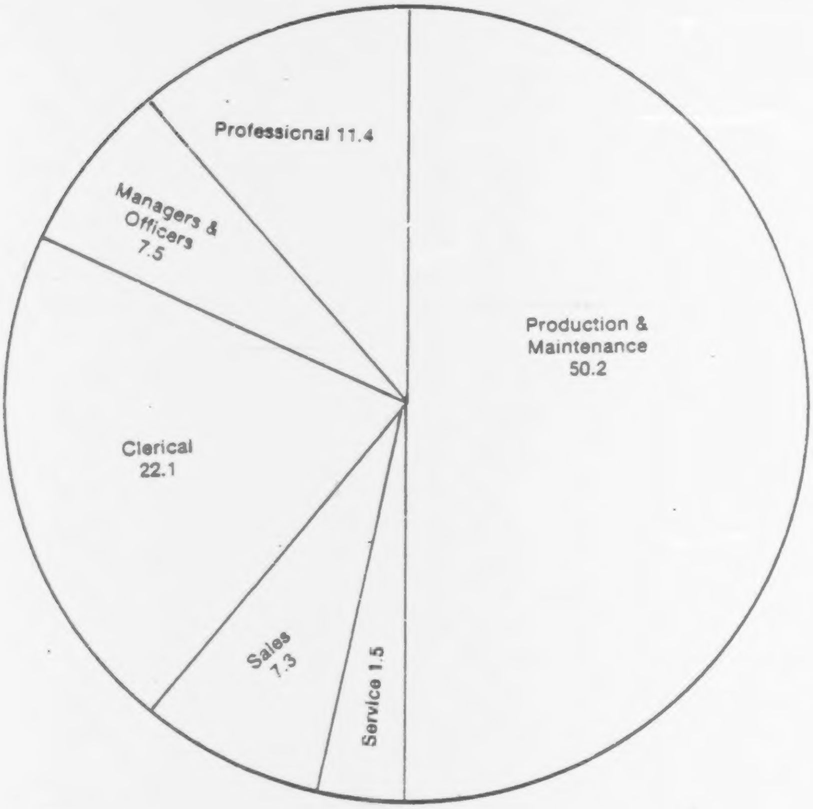
Production and maintenance occupations account for 50 percent of the employment in this industry and 57 percent of the top ten ranked occupational titles.

The professional and technical occupations in SIC's 271 (Newspapers) and 272 (Periodicals) are largely represented by writers, editors, reporters and correspondents, who comprise 80 percent of employment in those categories in industry 271 and 63 percent in industry 272.

The commercial printing (SIC 275) industry employs 45 percent (10,470) of the production and maintenance workers employed in the publishing industries. The concentration of printing press machine operators (76 percent of total employment) offset lithograph setters and set-up operators (78 percent of total) and precision lithography, photoengraving workers (66 percent) are contributing factors to the high level of employment in this category.

PRINTING, PUBLISHING AND ALLIED INDUSTRIES (SIC 27)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	General Managers and Top Executives	2,550
2.	All Other Precision Printing Workers	1,910
3.	Writers and Editors	1,840
4.	Printing Press Machine Operators and Tenders	1,810
5,	Offset Lithograpers Press Setters and Set-up Operators	1,750
6.	Sales Representatives except Scientific Products and Retail	1,700
7.	Precision Lithography and Photoengraving Workers	1,650
8.	Secretaries	1,540
9.	Typesetting and Composing Machine Operators and Tenders	1,530
10.	Supervisors - Production and Operating Workers	1,470

These 10 occupational categories make up 38.4% of total industry employment.

# TABLE
# OCCUPATIONS OF EMPLOYEES
# PRINTING, PUBLISHING & ALLIED INDUSTRIES
SIC = 27
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	46,240	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	3,470	7.50	N/A
FINANCIAL MANAGERS	150	0.32	18
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	70	0.15	16
PURCHASING MANAGERS	60	0.13	22
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	200	0.43	23
INDUSTRIAL PRODUCTION MANAGERS	170	0.37	21
GENERAL MANAGERS AND TOP EXECUTIVES	2,550	5.51	10
ALL OTHER MANAGERS AND ADMINISTRATORS	270	0.58	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	5,250	11.35	N/A
ACCOUNTANTS AND AUDITORS	90	0.19	12
ALL OTHER FINANCIAL SPECIALISTS	30	0.06	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	70	0.15	22
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	30	0.06	13
COST ESTIMATORS	90	0.19	16
ALL OTHER MANAGEMENT SUPPORT WORKERS	80	0.17	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	30	0.06	23
MECHANICAL ENGINEERS	10	0.02	29
ALL OTHER ENGINEERS	20	0.04	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	380	0.82	N/A
COMPUTER PROGRAMMER AIDES	40	0.09	34
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	10	0.02	19
WRITERS AND EDITORS	1,840	3.98	18
REPORTERS AND CORRESPONDENTS	1,210	2.62	30
PHOTOGRAPHERS	140	0.30	29
ARTISTS AND RELATED WORKERS	400	0.87	25
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	780	1.69	N/A
SALES AND RELATED OCCUPATIONS	3,370	7.29	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	310	0.67	16
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	470	1.02	33
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	1,700	3.68	23
ALL OTHER SALES AND RELATED WORKERS	890	1.92	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	10,220	22.10	N/A
LIBRARY ASSISTANTS AND BOOKMOBILE DRIVERS	40	0.09	20
ADVERTISING CLERKS	280	0.61	35
PROOFREADERS AND COPY MARKERS	930	2.01	14
SECRETARIES	1,540	3.33	10
TYPISTS, WORD PROCESSING EQUIPMENT	380	0.82	30
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	40	0.09	26
FILE CLERKS	30	0.06	26

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PRINTING, PUBLISHING & ALLIED INDUSTRIES
SIC = 27
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT NUMBER[1]	EMPLOYMENT PERCENT OF TOTAL	EMPLOYMENT RELATIVE ERROR %
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	370	0.80	25
PROCUREMENT CLERKS	20	0.04	22
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	1,290	2.79	13
PAYROLL AND TIMEKEEPING CLERKS	70	0.15	23
BILLING, COST AND RATE CLERKS	120	0.26	31
GENERAL OFFICE CLERKS	1,390	3.01	18
DATA KEYERS, COMPOSING	700	1.51	29
ALL OTHER OFFICE MACHINE OPERATORS	1,330	2.88	N/A
SWITCHBOARD OPERATORS	140	0.30	22
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	120	0.26	35
MESSENGERS	90	0.19	29
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	140	0.30	26
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	610	1.32	16
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	210	0.45	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	380	0.82	N/A
SERVICE OCCUPATIONS	700	1.51	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	40	0.09	29
GUARDS AND WATCH GUARDS	60	0.13	15
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	460	0.99	12
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	40	0.09	N/A
ALL OTHER SERVICE WORKERS	100	0.22	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	23,220	50.22	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	1,470	3.18	16
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	40	0.09	23
MAINTENANCE REPAIRERS, GENERAL UTILITY	220	0.48	15
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	790	1.71	N/A
ELECTRICIANS	50	0.11	34
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	10	0.02	19
ALL OTHER CONSTRUCTION TRADES WORKERS	20	0.04	N/A
MACHINISTS	60	0.13	28
ALL OTHER PRECISION METAL WORKERS	20	0.04	N/A
PRECISION LITHOGRAPHY, PHOTOENGRAVING WORKERS	1,650	3.57	12
ALL OTHER PRECISION PRINTING WORKERS	1,910	4.13	N/A
PRECISION DETAIL DESIGN DECORATORS & PAINTERS	350	0.76	31
ALL OTHER PRECISION WORKERS	300	0.65	N/A
OFFSET LITHO PRESS SETTER & SET-UP OPERATORS	1,750	3.78	11
LETTERPRESS SETTERS AND SET-UP OPERATORS	580	1.25	24
ALL OTHER PRINTING PRESS SETTERS, SET-UP OPER	520	1.12	14
PHOTOENGRAVING AND LITHOGRAPHING PHOTOGRAPHER	550	1.19	16

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PRINTING, PUBLISHING & ALLIED INDUSTRIES
SIC = 27
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
BINDERY MACHINE SETTERS AND SET-UP OPERATORS	1,060	2.29	22
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	250	0.54	N/A
TYPESETTING & COMPOSING MACH OPER & TENDERS	1,530	3.31	22
PRINTING PRESS MACHINE OPERATORS AND TENDERS	1,810	3.91	13
BINDERY MACHINE OPERATORS	1,410	3.05	16
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	740	1.60	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	80	0.17	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	350	0.76	N/A
ALL OTHER HAND WORKERS	840	1.82	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	1,210	2.62	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	130	0.28	30
ALL OTHFR MATERIAL MOVING EQUIPMENT OPERATORS	10	0.02	N/A
MACHINE FEEDERS AND OFFBEARERS	1,310	2.83	19
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	690	1.49	34
HAND PACKERS AND PACKAGERS	990	2.14	25
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	520	1.12	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
NEWSPAPERS
SIC = 271
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	13,560	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,020	7.52	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	780	5.75	30
ALL OTHER MANAGERS AND ADMINISTRATORS	230	1.70	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	2,800	20.65	N/A
ACCOUNTANTS AND AUDITORS	10	0.07	N/A
ALL OTHER FINANCIAL SPECIALISTS	20	0.15	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.15	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	0.15	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	100	0.74	N/A
ALL OTHER TEACHERS AND INSTRUCTORS	20	0.15	N/A
WRITERS AND EDITORS	1,070	7.89	27
REPORTERS AND CORRESPONDENTS	1,170	8.63	31
PHOTOGRAPHERS	100	0.74	34
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	280	2.06	N/A
SALES AND RELATED OCCUPATIONS	1,600	11.80	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	230	1.70	19
ALL OTHER SALES AND RELATED WORKERS	1,370	10.10	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	2,970	21.90	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	100	0.74	N/A
LIBRARY ASSISTANTS AND BOOKMOBILE DRIVERS	40	0.29	20
SECRETARIES	280	2.06	N/A
TYPISTS	260	1.92	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	330	2.43	N/A
GENERAL OFFICE CLERKS	510	3.76	N/A
ALL OTHER OFFICE MACHINE OPERATORS	510	3.76	N/A
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	140	1.03	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	800	5.90	N/A
SERVICE OCCUPATIONS	330	2.43	N/A
GUARDS AND WATCH GUARDS	40	0.29	16
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	180	1.33	24
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	30	0.22	N/A
ALL OTHER SERVICE WORKERS	80	0.59	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	4,850	35.77	N/A
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	30	0.22	29
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	120	0.88	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	30	0.22	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	40	0.29	N/A
ALL OTHER PRECISION PRINTING WORKERS	490	3.61	N/A
ALL OTHER PRECISION WORKERS	220	1.62	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
NEWSPAPERS
SIC = 271
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER PRINTING PRESS SETTERS, SET-UP OPER	610	4.50	N/A
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	120	0.88	N/A
TYPESETTING & COMPOSING MACH OPER & TENDERS	910	6.71	N/A
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	370	2.73	N/A
ALL OTHER HAND WORKERS	30	0.22	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	890	6.56	N/A
MACHINE FEEDERS AND OFFBEARERS	190	1.40	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	170	1.25	N/A
HAND PACKERS AND PACKAGERS	610	4.50	35
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	20	0.15	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PERIODICALS
SIC = 272
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,660	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	270	10.15	N/A
FINANCIAL MANAGERS	20	0.75	23
GENERAL MANAGERS AND TOP EXECUTIVES	190	7.14	10
ALL OTHER MANAGERS AND ADMINISTRATORS	70	2.63	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	680	25.56	N/A
ACCOUNTANTS AND AUDITORS	10	0.38	32
ALL OTHER FINANCIAL SPECIALISTS	20	0.75	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	70	2.63	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.38	32
COMPUTER PROGRAMMERS	20	0.75	25
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.38	N/A
WRITERS AND EDITORS	390	14.66	17
REPORTERS AND CORRESPONDENTS	40	1.50	28
ARTISTS AND RELATED WORKERS	50	1.88	29
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	60	2.26	N/A
SALES AND RELATED OCCUPATIONS	360	13.53	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	80	3.01	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	190	7.14	19
ALL OTHER SALES AND RELATED WORKERS	100	3.76	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,070	40.23	N/A
SECRETARIES	210	7.89	15
TYPISTS	80	3.01	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	180	6.77	9
GENERAL OFFICE CLERKS	270	10.15	18
DATA KEYERS, COMPOSING	20	0.75	35
ALL OTHER OFFICE MACHINE OPERATORS	30	1.13	N/A
SWITCHBOARD OPERATORS	20	0.75	22
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	20	0.75	24
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	90	3.38	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	160	6.02	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	270	10.15	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	90	3.38	31
ALL OTHER PRECISION PRINTING WORKERS	30	1.13	N/A
ALL OTHER PRECISION WORKERS	50	1.88	N/A
TYPESETTING & COMPOSING MACH OPER & TENDERS	50	1.88	34
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	50	1.88	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.38	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
BOOKS, PUBLISHING AND PRINTING
SIC = 273
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	5,960	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	500	8.39	N/A
FINANCIAL MANAGERS	50	0.84	23
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.34	15
PURCHASING MANAGERS	20	0.34	29
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	60	1.01	31
INDUSTRIAL PRODUCTION MANAGERS	30	0.50	23
GENERAL MANAGERS AND TOP EXECUTIVES	240	4.03	18
ALL OTHER MANAGERS AND ADMINISTRATORS	80	1.34	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	650	10.91	N/A
ACCOUNTANTS AND AUDITORS	30	0.50	22
ALL OTHER FINANCIAL SPECIALISTS	10	0.17	N/A
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.17	22
ALL OTHER MANAGEMENT SUPPORT WORKERS	60	1.01	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	10	0.17	35
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.17	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	110	1.85	N/A
WRITERS AND EDITORS	320	5.37	35
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	100	1.68	N/A
SALES AND RELATED OCCUPATIONS	230	3.86	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	10	0.17	N/A
ALL OTHER SALES AND RELATED WORKERS	220	3.69	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,550	26.01	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	30	0.50	N/A
SECRETARIES	310	5.20	24
TYPISTS	50	0.84	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	150	2.52	26
PAYROLL AND TIMEKEEPING CLERKS	20	0.34	21
BILLING, COST AND RATE CLERKS	20	0.34	26
GENERAL OFFICE CLERKS	190	3.19	28
ALL OTHER OFFICE MACHINE OPERATORS	120	2.01	N/A
SWITCHBOARD OPERATORS	20	0.34	18
MESSENGERS	10	0.17	30
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	30	0.50	31
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	60	1.01	30
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	190	3.19	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	350	5.87	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
BOOKS, PUBLISHING AND PRINTING
SIC = 273
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SERVICE OCCUPATIONS	90	1.51	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	50	0.84	24
ALL OTHER SERVICE WORKERS	40	0.67	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,940	49.33	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	10	0.17	30
SUPERVISORS-PRODUCTION & OPERATING WORKERS	170	2.85	30
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	20	0.34	N/A
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	10	0.17	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	0.50	35
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	260	4.36	N/A
ELECTRICIANS	20	0.34	31
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.17	N/A
MACHINISTS	10	0.17	35
ALL OTHER PRECISION PRINTING WORKERS	440	7.38	N/A
ALL OTHER PRECISION WORKERS	20	0.34	N/A
OFFSET LITHO PRESS SETTER & SET-UP OPERATORS	200	3.36	31
LETTERPRESS SETTERS AND SET-UP OPERATORS	150	2.52	31
ALL OTHER PRINTING PRESS SETTERS, SET-UP OPER	100	1.68	N/A
PHOTOENGRAVING AND LITHOGRAPHING PHOTOGRAPHER	30	0.50	34
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	750	12.58	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	10	0.17	N/A
ALL OTHER HAND WORKERS	70	1.17	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.17	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	100	1.68	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	10	0.17	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	330	5.54	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	190	3.19	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# COMMERCIAL PRINTING
SIC = 275
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	16,230	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,180	7.27	N/A
FINANCIAL MANAGERS	40	0.25	12
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.12	11
PURCHASING MANAGERS	20	0.12	13
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	40	0.25	21
INDUSTRIAL PRODUCTION MANAGERS	70	0.43	27
GENERAL MANAGERS AND TOP EXECUTIVES	970	5.98	7
ALL OTHER MANAGERS AND ADMINISTRATORS	30	0.18	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	660	4.07	N/A
ACCOUNTANTS AND AUDITORS	30	0.18	17
ALL OTHER FINANCIAL SPECIALISTS	10	0.06	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	30	0.18	13
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.06	29
COST ESTIMATORS	60	0.37	15
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	10	0.06	31
ALL OTHER ENGINEERS	30	0.18	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	50	0.31	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.06	31
ALL OTHER MATHEMATICAL SCIENTISTS	20	0.12	N/A
ARTISTS AND RELATED WORKERS	110	0.68	30
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	300	1.85	33
SALES AND RELATED OCCUPATIONS	730	4.50	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	30	0.18	23
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	60	0.37	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	140	0.86	23
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	470	2.90	12
ALL OTHER SALES AND RELATED WORKERS	40	0.25	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	3,010	18.55	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	50	0.31	22
PROOFREADERS AND COPY MARKERS	290	1.79	21
SECRETARIES	520	3.20	11
RECEPTIONIST AND INFORMATION CLERKS	10	0.06	27
TYPISTS	100	0.62	23
FILE CLERKS	10	0.06	27
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	170	1.05	25
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	450	2.77	13
PAYROLL AND TIMEKEEPING CLERKS	30	0.18	15
BILLING, COST AND RATE CLERKS	40	0.25	17
GENERAL OFFICE CLERKS	260	1.60	19

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
COMMERCIAL PRINTING
SIC = 275
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.06	33
DATA KEYERS, COMPOSING	220	1.36	34
ALL OTHER OFFICE MACHINE OPERATORS	140	0.86	N/A
SWITCHBOARD OPERATORS	30	0.18	13
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	90	0.55	20
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	80	0.49	17
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	280	1.73	16
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	20	0.12	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	220	1.36	N/A
SERVICE OCCUPATIONS	190	1.17	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	20	0.12	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	160	0.99	18
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.06	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	10,470	64.51	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	680	4.19	10
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.06	N/A
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	240	1.48	N/A
MACHINERY MAINTENANCE MECHANICS	20	0.12	35
MAINTENANCE REPAIRERS, GENERAL UTILITY	120	0.74	18
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	110	0.68	N/A
ALL OTHER PRECISION METAL WORKERS	20	0.12	N/A
PRECISION COMPOSITORS, TYPESETTERS, ARRANGERS	140	0.86	25
PRECISION LITHOGRAPHY, PHOTOENGRAVING WORKERS	1,100	6.78	11
ALL OTHER PRECISION PRINTING WORKERS	740	4.56	N/A
ALL OTHER PRECISION WORKERS	350	2.16	N/A
OFFSET LITHO PRESS SETTER & SET-UP OPERATORS	1,380	8.50	N/A
LETTERPRESS SETTERS AND SET-UP OPERATORS	200	1.23	22
ALL OTHER PRINTING PRESS SETTERS, SET-UP OPER	50	0.31	33
PHOTOENGRAVING AND LITHOGRAPHING PHOTOGRAPHER	360	2.22	19
BINDERY MACHINE SETTERS AND SET-UP OPERATORS	510	3.14	19
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	100	0.62	N/A
TYPESETTING & COMPOSING MACH OPER & TENDERS	370	2.28	18
PRINTING PRESS MACHINE OPERATORS AND TENDERS	1,390	8.56	14
BINDERY MACHINE OPERATORS	600	3.70	17
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	280	1.73	N/A
CUTTING, SLICING MACH OPERATORS AND TENDERS	60	0.37	32
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	70	0.43	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	160	0.99	N/A
ALL OTHER HAND WORKERS	400	2.46	32
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	20	0.12	32

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
COMMERCIAL PRINTING
SIC = 275
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	210	1.29	14
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.06	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	20	0.12	N/A
MACHINE FEEDERS AND OFFBEARERS	350	2.16	29
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	230	1.42	22
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	170	1.05	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
SERVICE INDUSTRIES FOR THE PRINTING TRADE
SIC = 279
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,190	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	90	7.56	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	90	7.56	4
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	80	6.72	N/A
DRAFTERS	10	0.84	35
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.84	28
COMPUTER PROGRAMMERS	20	1.68	23
ARTISTS AND RELATED WORKERS	20	1.68	34
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	20	1.68	N/A
SALES AND RELATED OCCUPATIONS	80	6.72	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	70	5.88	9
ALL OTHER SALES AND RELATED WORKERS	10	0.84	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	550	46.22	N/A
PROOFREADERS AND COPY MARKERS	190	15.97	4
SECRETARIES	30	2.52	10
TYPISTS	10	0.84	33
TYPISTS, WORD PROCESSING EQUIPMENT	30	2.52	28
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	10	0.84	25
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	50	4.20	7
GENERAL OFFICE CLERKS	30	2.52	15
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.84	40
DATA KEYERS, COMPOSING	180	15.13	12
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	10	0.84	20
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.84	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	400	33.61	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	70	5.88	8
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.84	24
PRECISION COMPOSITORS, TYPESETTERS, ARRANGERS	40	3.36	21
PRECISION LITHOGRAPHY, PHOTOENGRAVING WORKERS	40	3.36	25
ALL OTHER PRECISION PRINTING WORKERS	10	0.84	N/A
PRECISION DETAIL DESIGN DECORATORS & PAINTERS	20	1.68	22
PHOTOENGRAVING AND LITHOGRAPHING PHOTOGRAPHER	40	3.36	12
TYPESETTING & COMPOSING MACH OPER & TENDERS	110	9.24	16
PRINTING PRESS MACHINE OPERATORS AND TENDERS	10	0.84	24
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	10	0.84	N/A
ALL OTHER HAND WORKERS	40	3.36	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	20	1.68	14

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

SIC 28

This major group includes establishments producing basic chemicals, and establishments manufacturing products by predominantly chemical processes.

Employment in the chemical and allied products industry was 16,800 in 1983 which represented a 2.6 percent share of the state's manufacturing work force. Since 1980 employment in the industry has dropped 8.7 percent.

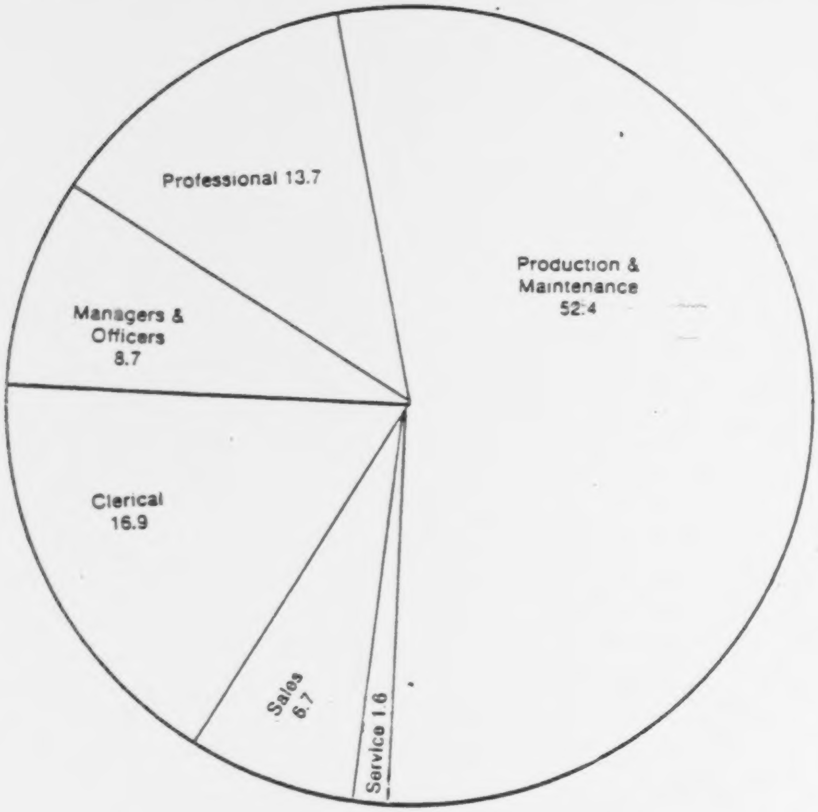
PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

	28	282	284	285
TOTAL	100%	100%	100%	100%
Managerial & Administrative Occs.	8.70	6.58	8.89	9.66
Profess., Paraprofess., Tech., Occs.	13.73	16.55	8.89	9.66
Sales and Related Occs.	6.69	3.63	6.30	6.21
Clerical & Administrative Support Occs.	16.92	10.43	18.89	22.76
Service Occs.	1.60	2.95	1.48	0.69
Prod., Construc., & Maint., Occs.	52.37	59.86	55.19	51.03

The occupations of crushing, grinding, mixing machine operators and tenders and packaging, filling machine operators and tenders are the largest occupations among all the production workers employing 940 workers respectively. There are 900 employed in the top executive category followed by 810 in the sales representative occupation. Other important occupations are secretaries with 600 and chemists and chemical technicians employing 540 workers.

CHEMICALS AND ALLIED PRODUCTS (SIC 28)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Crushing and Other Machine Operators	940
2.	Packaging and Filling Machine Operators	940
3.	All Other Machine Operators	920
4.	General Managers and Top Executives	900
5.	Sales Representatives, Scientific Products except Retail	810
6.	Supervisors - Production and Operating Workers	780
7.	Secretaries	600
8.	Chemical Equipment Operators and Related Workers	560
9.	Chemists	540
10.	Chemical Technicians and Technologists except Health Workers	540

These 10 occupational categories make up 44.6% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
CHEMICALS AND ALLIED PRODUCTS
SIC = 28
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	16,900	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,470	8.70	N/A
FINANCIAL MANAGERS	60	0.36	32
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	40	0.24	31
PURCHASING MANAGERS	30	0.18	25
INDUSTRIAL PRODUCTION MANAGERS	110	0.65	25
GENERAL MANAGERS AND TOP EXECUTIVES	900	5.33	16
ALL OTHER MANAGERS AND ADMINISTRATORS	330	1.95	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	2,320	13.73	N/A
ACCOUNTANTS AND AUDITORS	170	1.01	13
ALL OTHER FINANCIAL SPECIALISTS	30	0.18	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	50	0.30	19
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	20	0.12	26
ALL OTHER MANAGEMENT SUPPORT WORKERS	70	0.41	N/A
CHEMICAL ENGINEERS	270	1.60	23
ELECTRICAL AND ELECTRONIC ENGINEERS	30	0.18	24
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	20	0.12	13
SAFETY ENGINEERS, EXCEPT MINING	20	0.12	27
MECHANICAL ENGINEERS	70	0.41	30
ALL OTHER ENGINEERS	20	0.12	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	30	0.18	34
DRAFTERS	20	0.12	35
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	0.12	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	540	3.20	17
ALL OTHER PHYSICAL SCIENTISTS	10	0.06	N/A
ALL OTHER LIFE SCIENTISTS	100	0.59	N/A
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	540	3.20	11
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	110	0.65	N/A
REGISTERED NURSES	10	0.06	36
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	30	0.18	N/A
TECHNICAL WRITERS	10	0.06	33
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	130	0.77	N/A
SALES AND RELATED OCCUPATIONS	1,130	6.69	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	70	0.41	29
SALES ENGINEERS	170	1.01	30
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	810	4.79	19
ALL OTHER SALES AND RELATED WORKERS	80	0.47	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	2,860	16.92	N/A
SECRETARIES	600	3.55	19
TYPISTS	80	0.47	22

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
CHEMICALS AND ALLIED PRODUCTS
SIC = 28
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER OFFICE MACHINE OPERATORS	70	0.41	N/A
SWITCHBOARD OPERATORS	20	0.12	35
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	120	0.71	33
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	260	1.54	21
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	520	3.08	12
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	20	0.12	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	240	1.42	N/A
SERVICE OCCUPATIONS	270	1.60	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	180	1.07	12
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.06	N/A
ALL OTHER SERVICE WORKERS	80	0.47	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	8,850	52.37	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	90	0.53	22
SUPERVISORS-PRODUCTION & OPERATING WORKERS	780	4.62	15
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	40	0.24	16
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	330	1.95	35
MACHINERY MAINT MECHANIC, WATER OR POWER GEN.	130	0.77	21
ALL OTHER MACHINERY MAINTENANCE MECHANICS	250	1.48	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	320	1.89	17
PRECISION INSTRUMENT REPAIRERS	50	0.30	22
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	130	0.77	N/A
ELECTRICIANS	90	0.53	21
ALL OTHER CONSTRUCTION TRADES WORKERS	120	0.71	N/A
MACHINISTS	90	0.53	35
SHEET METAL WORKERS	10	0.06	33
ALL OTHER PRECISION WORKERS	110	0.65	N/A
CHEMICAL EQUIPMENT CONTROLLERS AND OPERATORS	560	3.31	29
CHEMICAL EQUIPMENT TENDERS	210	1.24	35
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	940	5.56	23
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	940	5.56	15
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	340	2.01	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	920	5.44	N/A
ALL OTHER HAND WORKERS	310	1.83	N/A
CHEMICAL PLANT & SYSTEM OPERATORS	220	1.30	34
ALL OTHER PLANT AND SYSTEM OPERATORS	140	0.83	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	240	1.42	24
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	120	0.71	21
ALL OTHER TRANSPORTATION AND RELATED WORKERS	10	0.06	N/A
TANK CAR AND TRUCK LOADERS	20	0.12	27
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	140	0.83	28

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
CHEMICALS AND ALLIED PRODUCTS
SIC = 28
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	130	0.77	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	230	1.36	34
HAND PACKERS AND PACKAGERS	390	2.31	18
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	450	2.66	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PLASTIC MATERIALS & SYNTHETICS
SIC = 282
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,410	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	290	6.58	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	140	3.17	32
ALL OTHER MANAGERS AND ADMINISTRATORS	150	3.40	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	730	16.55	N/A
ACCOUNTANTS AND AUDITORS	40	0.91	20
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.23	31
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.45	N/A
CHEMICAL ENGINEERS	170	3.85	18
ELECTRICAL AND ELECTRONIC ENGINEERS	20	0.45	24
ALL OTHER ENGINEERS	40	0.91	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	0.45	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	110	2.49	27
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	220	4.99	18
COMPUTER PROGRAMMERS	10	0.23	33
ALL OTHER MATHEMATICAL SCIENTISTS	20	0.45	N/A
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	**	0.00	N/A
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	10	0.23	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	30	0.68	N/A
SALES AND RELATED OCCUPATIONS	160	3.63	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	40	0.91	N/A
SALES ENGINEERS	40	0.91	23
ALL OTHER SALES AND RELATED WORKERS	80	1.81	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	460	10.43	N/A
SECRETARIES	120	2.72	14
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	10	0.23	28
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	30	0.68	34
GENERAL OFFICE CLERKS	40	0.91	26
ALL OTHER OFFICE MACHINE OPERATORS	20	0.45	N/A
ALL OTHER COMMUNICATIONS EQUIPMENT OPERATORS	10	0.23	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	20	0.45	32
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	80	1.81	18
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	50	1.13	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	90	2.04	N/A
SERVICE OCCUPATIONS	130	2.95	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	40	0.91	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	80	1.81	16
ALL OTHER SERVICE WORKERS	10	0.23	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,640	59.86	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	40	0.91	14

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PLASTIC MATERIALS & SYNTHETICS
SIC = 282
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SUPERVISORS-PRODUCTION & OPERATING WORKERS	260	5.90	30
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	10	0.23	34
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.23	N/A
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	190	4.31	N/A
ALL OTHER MACHINERY MAINTENANCE MECHANICS	130	2.95	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	130	2.95	30
PRECISION INSTRUMENT REPAIRERS	30	0.68	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	10	0.23	N/A
ELECTRICIANS	50	1.13	10
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	20	0.45	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	20	0.45	N/A
ALL OTHER PRECISION METAL WORKERS	10	0.23	N/A
SHEET METAL WORKERS	10	0.23	N/A
ALL OTHER PRECISION WORKERS	90	2.04	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	190	4.31	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	1,000	22.68	N/A
ALL OTHER HAND WORKERS	10	0.23	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	190	4.31	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	90	2.04	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	40	0.91	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	90	2.04	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	50	1.13	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
SOAP CLEANERS AND TOILET GOODS
SIC = 284
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,700	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	240	8.89	N/A
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.37	18
PURCHASING MANAGERS	10	0.37	N/A
INDUSTRIAL PRODUCTION MANAGERS	40	1.48	43
GENERAL MANAGERS AND TOP EXECUTIVES	120	4.44	14
ALL OTHER MANAGERS AND ADMINISTRATORS	70	2.59	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	240	8.89	N/A
ACCOUNTANTS AND AUDITORS	40	1.48	32
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	20	0.74	22
ALL OTHER MANAGEMENT SUPPORT WORKERS	30	1.11	N/A
CHEMICAL ENGINEERS	10	0.37	39
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	20	0.74	6
MECHANICAL ENGINEERS	10	0.37	24
ALL OTHER ENGINEERS	20	0.74	N/A
DRAFTERS	10	0.37	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	30	1.11	27
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	40	1.48	20
ALL OTHER MATHEMATICAL SCIENTISTS	20	0.74	N/A
REGISTERED NURSES	10	0.37	N/A
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	10	0.37	N/A
SALES AND RELATED OCCUPATIONS	170	6.30	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	10	0.37	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	80	2.96	34
ALL OTHER SALES AND RELATED WORKERS	90	3.33	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	510	18.89	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.37	12
SECRETARIES	80	2.96	16
TYPISTS	30	1.11	30
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	10	0.37	12
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	50	1.85	14
PAYROLL AND TIMEKEEPING CLERKS	10	0.37	28
GENERAL OFFICE CLERKS	70	2.59	22
ALL OTHER OFFICE MACHINE OPERATORS	20	0.74	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.37	7
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	50	1.85	40
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	110	4.07	22
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	90	3.33	N/A
SERVICE OCCUPATIONS	40	1.48	N/A
GUARDS AND WATCH GUARDS	10	0.37	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
SOAP CLEANERS AND TOILET GOODS
SIC = 284
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER FOOD SERVICE WORKERS	10	0.37	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	20	0.74	15
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,490	55.19	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	20	0.74	35
SUPERVISORS-PRODUCTION & OPERATING WORKERS	60	2.22	21
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	20	0.74	19
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	10	0.37	N/A
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	70	2.59	28
ALL OTHER MACHINERY MAINTENANCE MECHANICS	70	2.59	17
MAINTENANCE REPAIRERS, GENERAL UTILITY	20	0.74	16
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.37	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	60	2.22	N/A
ELECTRICIANS	20	0.74	13
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.37	N/A
MACHINISTS	30	1.11	40
ALL OTHER PRECISION WORKERS	10	0.37	N/A
BOILER OPERATORS AND TENDERS, LOW PRESSURE	20	0.74	16
CHEMICAL EQUIPMENT CONTROLLERS AND OPERATORS	30	1.11	29
CHEMICAL EQUIPMENT TENDERS	10	0.37	40
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	100	3.70	44
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	350	12.96	19
ALL OTHER MACHINE OPERATORS AND TENDERS	40	1.48	N/A
ALL OTHER PRECISION ASSEMBLERS, EXCEPT METAL	10	0.37	N/A
ALL OTHER HAND WORKERS	20	0.74	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	10	0.37	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	20	0.74	47
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	20	0.74	37
TANK CAR AND TRUCK LOADERS	10	0.37	27
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	40	1.48	34
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	20	0.74	N/A
MACHINE FEEDERS AND OFFBEARERS	10	0.37	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	120	4.44	10
HAND PACKERS AND PACKAGERS	210	7.78	10
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	80	2.96	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PAINTS AND ALLIED PRODUCTS
SIC = 285
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,450	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	140	9.66	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	140	9.66	8
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	140	9.66	N/A
ACCOUNTANTS AND AUDITORS	10	0.69	33
ALL OTHER ENGINEERS	10	0.69	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	80	5.52	17
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	40	2.76	20
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	**	0.00	N/A
SALES AND RELATED OCCUPATIONS	90	6.21	N/A
SALES ENGINEERS	20	1.38	31
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	70	4.83	19
ALL OTHER SALES AND RELATED WORKERS	10	0.69	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	330	22.76	N/A
SECRETARIES	50	3.45	15
TYPISTS	10	0.69	24
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	50	3.45	14
GENERAL OFFICE CLERKS	90	6.21	15
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	20	1.38	30
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	110	7.59	11
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.69	N/A
SERVICE OCCUPATIONS	10	0.69	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	**	0.00	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	10	0.69	28
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	740	51.03	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	60	4.14	12
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	20	1.38	26
ALL OTHER MACHINERY MAINTENANCE MECHANICS	10	0.69	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	2.07	16
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	210	14.48	13
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	240	16.55	18
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	10	0.69	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	40	2.76	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	30	2.07	28
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.69	24
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	30	2.07	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	40	2.76	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

SIC 30

This major group includes establishments manufacturing from natural, synthetic, or reclaimed rubber, gutta percha, balata, or gutta siak, rubber products such as tires, rubber footwear, mechanical rubber goods, heels and soles, flooring, and rubber sundries.

The employment in the rubber and miscellaneous plastics industry, 30,500 jobs, remained nearly unchanged from its 1980 level, 30,600 jobs. In 1983, the industry represented a 4.8 percent share of the state's manufacturing employment, a slight increase over the 4.5 percent share in 1980.

PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

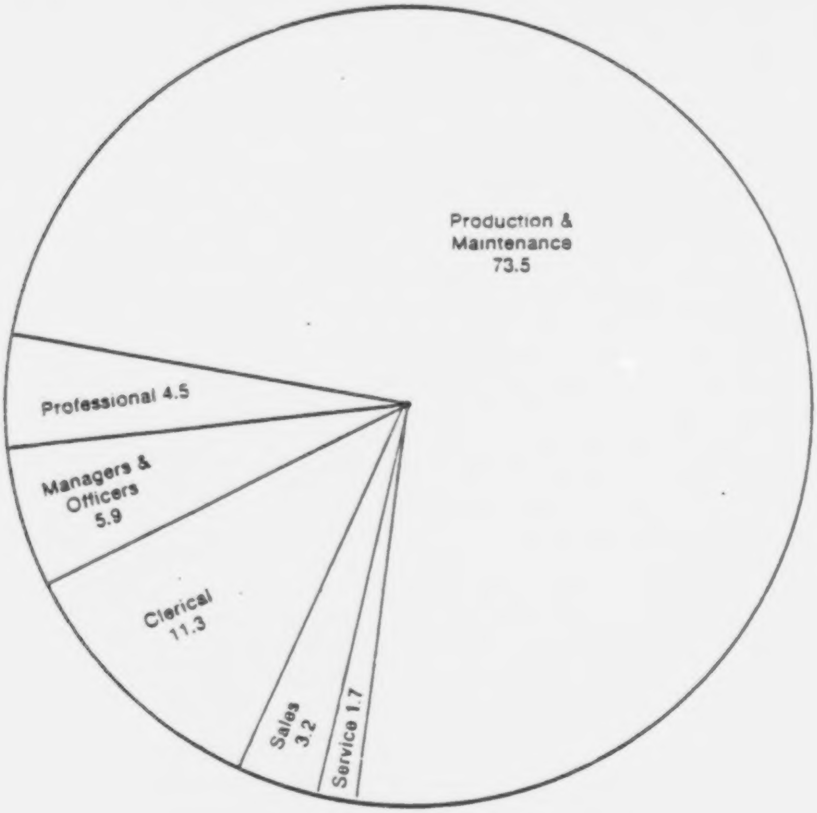
	30	307
TOTAL	100%	100%
Managerial & Administrative Occs.	5.84	6.15
Profess., Paraprofess., Tech., Occs.	4.45	3.72
Sales and Related Occs.	3.21	2.73
Clerical & Admin., Support Occs.	11.30	10.25
Service Occs.	1.66	1.62
Prod., Construc., & Maint., Occs.	73.51	75.48

The large occupations in this industry are predominately in the production and maintenance category with 22,640 or a 73.5 percent share of the industry's employment. The number one occupation is all other metal and plastic machine operators and tenders with 4,630 workers. Other important occupations are all other hand workers, 3,430 workers, and all other laborers with 3,010 workers.

The occupation with the largest number not in the production and maintenance category is 1,180 jobs in the top executive occupation.

RUBBER AND MISCELLANEOUS PLASTICS PRODUCTS (SIC 30)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	All Other Metal and Plastic Machine Operators and Tenders	4,630
2.	All Other Hand Workers	3,430
3.	All Other Helpers, Laborers, and Material Movers, Hand	3,010
4.	All Other Machine Operators and Tenders	3,000
5.	Assemblers and Fabricators except Machine, Electrical, Electronic and Precision Workers	2,000
6.	Supervisors - Production and Operating Workers	1,750
7.	All Other Precision Metal Workers	1,440
8.	All Other Mechanics, Installers, and Repairers	1,400
9.	All Other Metal and Plastic Machine Setters, and Set-up Operators	1,180
10.	General Managers and Top Executives	1,180

These 10 occupational categories make up 75.5% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
RUBBER & MISC. PLASTICS PRODUCTS
SIC = 30
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	30,800	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,800	5.84	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	1,180	3.83	24
ALL OTHER MANAGERS AND ADMINISTRATORS	620	2.01	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	1,370	4.45	N/A
ACCOUNTANTS AND AUDITORS	230	0.75	30
ALL OTHER FINANCIAL SPECIALISTS	30	0.10	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	170	0.55	N/A
ALL OTHER ENGINEERS	330	1.07	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	100	0.32	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	510	1.66	N/A
SALES AND RELATED OCCUPATIONS	990	3.21	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	560	1.82	35
ALL OTHER SALES AND RELATED WORKERS	430	1.40	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	3,480	11.30	N/A
SECRETARIES	540	1.75	25
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	460	1.49	23
GENERAL OFFICE CLERKS	700	2.27	30
ALL OTHER OFFICE MACHINE OPERATORS	140	0.45	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	160	0.52	32
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	620	2.01	25
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	180	0.58	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	680	2.21	N/A
SERVICE OCCUPATIONS	510	1.66	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	340	1.10	24
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.03	N/A
ALL OTHER SERVICE WORKERS	160	0.52	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	22,640	73.51	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	1,750	5.68	29
MAINTENANCE REPAIRERS, GENERAL UTILITY	580	1.88	34
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	1,400	4.55	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	140	0.45	N/A
ALL OTHER PRECISION METAL WORKERS	1,440	4.68	N/A
ALL OTHER PRECISION WORKERS	60	0.19	N/A
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	10	0.03	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	1,400	4.55	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	4,630	15.03	N/A
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	210	0.68	N/A
SHOE SEWING MACHINE OPERATORS AND TENDERS	180	0.58	N/A
CUTTING,SLICING MACH SETTER,SET-UP OPERATORS	20	0.06	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
RUBBER & MISC. PLASTICS PRODUCTS
SIC = 30
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
CEMENTING & GLUING MACHINE OPERATOR & TENDERS	150	0.49	20
CLEAN,WASH,PICKLING EQUIP OPERATORS & TENDERS	20	0.06	11
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	770	2.50	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	3,000	9.74	N/A
ALL OTHER HAND WORKERS	3,430	11.14	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	40	0.13	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	60	0.19	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	340	1.10	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	3,010	9.77	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISC. PLASTICS PRODUCTS
SIC = 307
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT NUMBER[1]	EMPLOYMENT PERCENT OF TOTAL	EMPLOYMENT RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	23,410	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,440	6.15	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	110	0.47	N/A
INDUSTRIAL PRODUCTION MANAGERS	110	0.47	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	980	4.19	28
ALL OTHER MANAGERS AND ADMINISTRATORS	250	1.07	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	870	3.72	N/A
ACCOUNTANTS AND AUDITORS	170	0.73	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	110	0.47	N/A
ALL OTHER ENGINEERS	230	0.98	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	70	0.30	N/A
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	140	0.60	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	80	0.34	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	80	0.34	N/A
SALES AND RELATED OCCUPATIONS	640	2.73	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	140	0.60	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	400	1.71	N/A
ALL OTHER SALES AND RELATED WORKERS	110	0.47	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	2,400	10.25	N/A
SECRETARIES	390	1.67	32
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	300	1.28	N/A
GENERAL OFFICE CLERKS	540	2.31	N/A
ALL OTHER OFFICE MACHINE OPERATORS	80	0.34	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	100	0.43	N/A
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	470	2.01	32
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	90	0.38	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	430	1.84	N/A
SERVICE OCCUPATIONS	380	1.62	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	260	1.11	33
ALL OTHER SERVICE WORKERS	120	0.51	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	17,670	75.48	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	1,360	5.81	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	110	0.47	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	130	0.56	N/A
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	330	1.41	N/A
MACHINERY MAINTENANCE MECHANICS	330	1.41	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	360	1.54	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	80	0.34	N/A
TOOL AND DIE MAKERS	120	0.51	N/A
MACHINISTS	1,150	4.91	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISC. PLASTICS PRODUCTS
SIC = 307
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER PRECISION WORKERS	60	0.26	N/A
EXTRUDING,DRAWING MACH SETTERS & SET-UP OPER.	360	1.54	N/A
MACH FORMING OPER & TENDERS, METAL & PLASTIC	630	2.69	N/A
PLAS MOLDING,CASTING MACH SETTERS,SET-UP OPER	430	1.84	N/A
PLASTIC MOLDING CASTING MACHINE OPER, TENDERS	3,570	15.25	N/A
HEATERS, METAL AND PLASTIC	190	0.81	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	60	0.26	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	100	0.43	N/A
PRINTING PRESS MACHINE OPERATORS AND TENDERS	130	0.56	N/A
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	70	0.30	N/A
CUTTING, SLICING MACH OPERATORS AND TENDERS	220	0.94	N/A
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	190	0.81	N/A
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	140	0.60	N/A
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	210	0.90	N/A
EXTRUDING, FORMING, PRESSING MACHINE SETTERS	440	1.88	N/A
EXTRUDING, FORMING, PRESSING MACHINE OPERATOR	620	2.65	N/A
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	510	2.18	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	160	0.68	N/A
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	1,640	7.01	N/A
ALL OTHER HAND WORKERS	1,250	5.34	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	50	0.21	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	240	1.03	N/A
MACHINE FEEDERS AND OFFBEARERS	580	2.48	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	560	2.39	N/A
HAND PACKERS AND PACKAGERS	970	4.14	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	330	1.41	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

SIC 31

This major group includes establishments engaged in tanning, currying, and finishing hides and skins, and establishments manufacturing finished leather and artificial leather products. Products include footwear (excluding rubber) and footwear components, leather gloves, mittens, luggage, handbags and other leather goods. The leather industry has been a major component of the nondurable goods sector in Massachusetts, but employment in this industry has declined as foreign imports have increased their penetration in this country.

Employment in this industry fell by 4,500 or -21.0 percent from 1980 to 1983 going from 21,400 in 1980 to 16,900 in 1983. This rate of decline exceeds that of -16.7 percent for the nondurables group as a whole. Between 1982 and 1983 alone, 1,700 jobs were lost and this accounted for nearly eighty (80) percent of the total 1980-1983 decline. Whether this most recently recorded large employment drop in this industry is a bellwether for future employment losses remains to be seen.

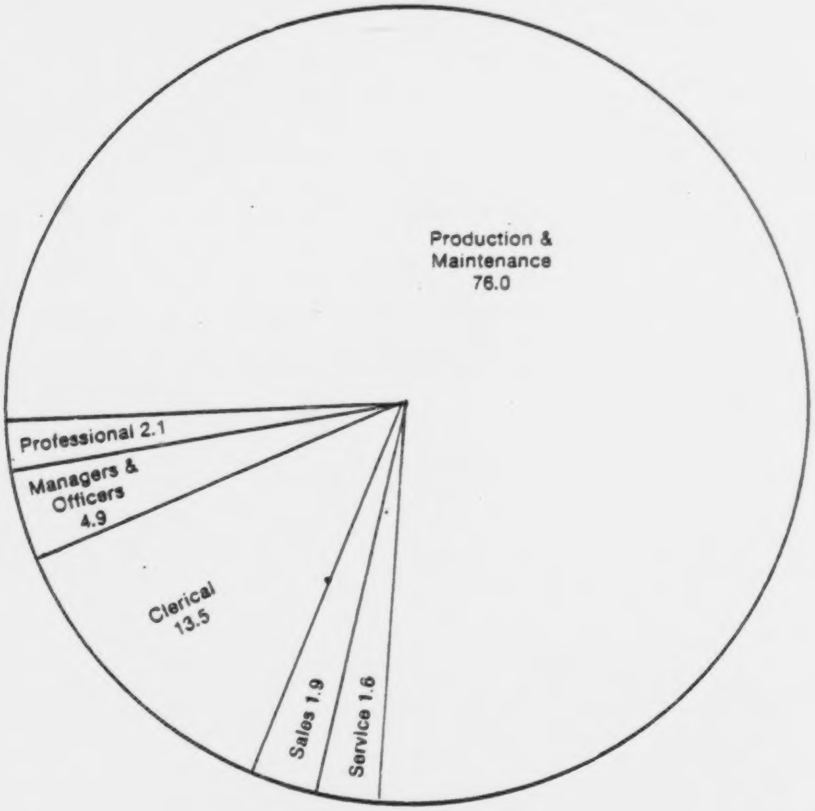
PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

	31	311	313	314	317
TOTAL	100%	100%	100%	100%	100%
Managerial & Administrative	4.85	7.02	8.90	3.15	5.12
Profess., Paraprofess., Tech.	2.06	2.19	2.54	1.46	3.54
Sales and Related	1.94	1.75	2.97	0.45	6.30
Clerical & Admin, Support	13.52	9.21	11.44	15.73	11.81
Service	1.64	0.88	1.69	2.13	1.18
Prod., Construction & Maint.	76.06	78.95	72.88	76.97	72.44

Jobs in the Production, Construction and Maintenance occupational grouping continue to represent over 70 percent of total industry employment as was the case in the (last) 1980 survey, although there was a job loss of 3,580 workers or -22.2 percent in this occupational grouping over the 1980-1983 time frame.

LEATHER AND LEATHER PRODUCTS (SIC 31)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Shoe and Leather Workers and Repairers - Precision	3,130
2.	Shoe Sewing Machine Operators and Tenders	1,610
3.	All Other Machine Operators and Tenders	740
4.	Cementing and Gluing Machine Operators and Tenders	670
5.	Assemblers and Fabricators-except Machine, Electrical, Electronic, and Precision Workers	650
6.	Sewing Machine Operators, Non-garment	540
7.	Machine Feeders and Offbearers	510
8.	All Other Material Recording, Scheduling, and Distributing Workers	500
9.	Supervisors - Production and Operating Workers	440
10.	Cutters and Trimmers, Hand	

These 10 occupational categories make up 55.8% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
LEATHER & LEATHER PRODUCTS
SIC = 31
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	16,500	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	800	4.85	N/A
FINANCIAL MANAGERS	60	0.36	8
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	30	0.18	10
PURCHASING MANAGERS	20	0.12	14
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	80	0.48	19
ADMINISTRATIVE SERVICES MANAGERS	40	0.24	35
INDUSTRIAL PRODUCTION MANAGERS	120	0.73	13
GENERAL MANAGERS AND TOP EXECUTIVES	400	2.42	7
ALL OTHER MANAGERS AND ADMINISTRATORS	50	0.30	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	340	2.06	N/A
ACCOUNTANTS AND AUDITORS	80	0.48	16
ALL OTHER FINANCIAL SPECIALISTS	10	0.06	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	40	0.24	13
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	20	0.12	15
COST ESTIMATORS	20	0.12	17
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.12	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	30	0.18	14
MECHANICAL ENGINEERS	10	0.06	N/A
ALL OTHER ENGINEERS	10	0.06	N/A
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	10	0.06	8
CHEMISTS, EXCEPT BIOCHEMISTS	10	0.06	N/A
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	10	0.06	18
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.06	27
COMPUTER PROGRAMMERS	30	0.18	25
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	10	0.06	N/A
DESIGNERS, EXCEPT INTERIOR DESIGNERS	30	0.18	17
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.06	N/A
SALES AND RELATED OCCUPATIONS	320	1.94	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	40	0.24	7
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	110	0.67	7
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	140	0.85	11
ALL OTHER SALES AND RELATED WORKERS	30	0.18	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	2,230	13.52	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	70	0.42	19
SECRETARIES	210	1.27	14
RECEPTIONIST AND INFORMATION CLERKS	20	0.12	11
TYPISTS	10	0.06	25
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.06	27
FILE CLERKS	20	0.12	26

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# LEATHER & LEATHER PRODUCTS
SIC = 31
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	110	0.67	32
PROCUREMENT CLERKS	20	0.12	25
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	230	1.39	17
PAYROLL AND TIMEKEEPING CLERKS	100	0.61	6
BILLING, COST AND RATE CLERKS	60	0.36	9
GENERAL OFFICE CLERKS	270	1.64	20
BILLING, POSTING, CALCULATING MACH. OPERATORS	10	0.06	28
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	30	0.18	22
DATA ENTRY KEYERS, EXCEPT COMPOSING	80	0.48	36
ALL OTHER OFFICE MACHINE OPERATORS	10	0.06	N/A
SWITCHBOARD OPERATORS	30	0.18	8
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	50	0.30	12
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS	20	0.12	14
MARKING CLERKS	10	0.06	N/A
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	350	2.12	11
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	500	3.03	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.06	N/A
SERVICE OCCUPATIONS	270	1.64	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	40	0.24	32
GUARDS AND WATCH GUARDS	60	0.36	20
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	140	0.85	6
ELEVATOR OPERATORS	20	0.12	15
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.06	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	12,550	76.06	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	10	0.06	17
SUPERVISORS-PRODUCTION & OPERATING WORKERS	440	2.67	6
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	10	0.06	20
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	30	0.18	21
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	300	1.82	11
MACHINERY MAINTENANCE MECHANICS, TEXTILE MACH	10	0.06	N/A
MACHINERY MAINTENANCE MECHANICS, SEWING MACH.	40	0.24	10
MACHINERY MAINT MECHANIC, WATER OR POWER GEN.	10	0.06	N/A
ALL OTHER MACHINERY MAINTENANCE MECHANICS	10	0.06	N/A
MACHINERY MAINTENANCE WORKERS	10	0.06	17
MAINTENANCE REPAIRERS, GENERAL UTILITY	130	0.79	7
CARPENTERS	10	0.06	17
ELECTRICIANS	10	0.06	N/A
MACHINISTS	30	0.18	11
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	20	0.12	17
FABRIC, APPAREL PATTERNMAKER, LAYOUT WORKERS	60	0.36	30

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
LEATHER & LEATHER PRODUCTS
SIC = 31
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SHOE & LEATHER WORKERS, REPAIRERS-PRECISION	3,130	18.97	13
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	210	1.27	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	50	0.30	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	80	0.48	N/A
TEXTILE MACHINE OPERATORS AND TENDERS	120	0.73	7
EXTRUDING MACH OPER-TENDER,SYNTH,GLASS FIBERS	20	0.12	N/A
TEXTILE DRAW-OUT MACHINE OPERATORS & TENDERS	20	0.12	N/A
TEXTILE BLEACHING & DYEING MACH OPER & TENDER	10	0.06	19
SEWING MACHINE OPERATORS, GARMENT	120	0.73	32
SEWING MACHINE OPERATORS, NON-GARMENT	540	3.27	14
SHOE SEWING MACHINE OPERATORS AND TENDERS	1,610	9.76	9
PRESSING MACH OPER & TENDERS-TEXTILE, GARMENT	70	0.42	20
CUTTING,SLICING MACH SETTER,SET-UP OPERATORS	220	1.33	17
CUTTING, SLICING MACH OPERATORS AND TENDERS	300	1.82	16
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	10	0.06	11
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	50	0.30	27
CEMENTING & GLUING MACHINE OPERATOR & TENDERS	670	4.06	10
CLEAN,WASH,PICKLING EQUIP OPERATORS & TENDERS	40	0.24	33
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	20	0.12	11
EXTRUDING, FORMING, PRESSING MACHINE SETTERS	50	0.30	20
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	110	0.67	31
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	20	0.12	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	740	4.48	N/A
SEWERS, HAND	230	1.39	23
CUTTERS AND TRIMMERS, HAND	410	2.48	9
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	650	3.94	18
ALL OTHER HAND WORKERS	410	2.48	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	20	0.12	20
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	20	0.12	16
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.06	18
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	30	0.18	19
MECHANIC AND REPAIRER HELPERS	10	0.06	N/A
CONSTRUCTION TRADES, EXTRACTIVE WORKER HELPER	10	0.06	N/A
MACHINE FEEDERS AND OFFBEARERS	510	3.09	9
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	340	2.06	16
HAND PACKERS AND PACKAGERS	170	1.03	17
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	390	2.36	N/A

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
LEATHER, TANNING AND FINISHING
SIC = 311
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,280	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	160	7.02	N/A
FINANCIAL MANAGERS	10	0.44	16
INDUSTRIAL PRODUCTION MANAGERS	10	0.44	14
GENERAL MANAGERS AND TOP EXECUTIVES	130	5.70	8
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.44	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	50	2.19	N/A
ACCOUNTANTS AND AUDITORS	20	0.88	22
ALL OTHER FINANCIAL SPECIALISTS	10	0.44	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.44	24
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.44	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.44	N/A
SALES AND RELATED OCCUPATIONS	40	1.75	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	10	0.44	38
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	30	1.32	19
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	210	9.21	N/A
SECRETARIES	20	0.88	16
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	40	1.75	9
BILLING, COST AND RATE CLERKS	10	0.44	17
GENERAL OFFICE CLERKS	40	1.75	12
ALL OTHER COMMUNICATIONS EQUIPMENT OPERATORS	10	0.44	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.44	29
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS	10	0.44	28
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	70	3.07	8
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.44	N/A
SERVICE OCCUPATIONS	20	0.88	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	20	0.88	17
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,800	78.95	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	140	6.14	8
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	10	0.44	35
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	40	1.75	19
MAINTENANCE REPAIRERS, GENERAL UTILITY	60	2.63	9
SHOE & LEATHER WORKERS, REPAIRERS-PRECISION	230	10.09	20
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	90	3.95	34
SEWING MACHINE OPERATORS, NON-GARMENT	60	2.63	35
CUTTING,SLICING MACH SETTER,SET-UP OPERATORS	30	1.32	29
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	10	0.44	37
CLEAN,WASH,PICKLING EQUIP OPERATORS & TENDERS	10	0.44	38
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	10	0.44	35

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
LEATHER, TANNING AND FINISHING
SIC = 311
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
EXTRUDING, FORMING, PRESSING MACHINE SETTERS	10	0.44	37
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	10	0.44	49
ALL OTHER MACHINE OPERATORS AND TENDERS	80	3.51	N/A
CUTTERS AND TRIMMERS, HAND	120	5.26	14
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	90	3.95	40
ALL OTHER HAND WORKERS	40	1.75	50
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.44	29
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	10	0.44	40
MACHINE FEEDERS AND OFFBEARERS	420	18.42	10
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	150	6.58	25
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	180	7.89	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
BOOT & SHOE CUT STOCK & FINDINGS
SIC = 313
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,360	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	210	8.90	N/A
FINANCIAL MANAGERS	20	0.85	N/A
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.42	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.42	9
ADMINISTRATIVE SERVICES MANAGERS	10	0.42	N/A
INDUSTRIAL PRODUCTION MANAGERS	10	0.42	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	130	5.51	11
ALL OTHER MANAGERS AND ADMINISTRATORS	30	1.27	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	60	2.54	N/A
ACCOUNTANTS AND AUDITORS	20	0.85	40
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.42	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.42	N/A
ALL OTHER ENGINEERS	10	0.42	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	10	0.42	N/A
SALES AND RELATED OCCUPATIONS	70	2.97	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	10	0.42	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	20	0.85	15
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	30	1.27	22
ALL OTHER SALES AND RELATED WORKERS	10	0.42	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	270	11.44	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.42	N/A
SECRETARIES	50	2.12	16
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	10	0.42	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	40	1.69	10
PAYROLL AND TIMEKEEPING CLERKS	10	0.42	N/A
BILLING, COST AND RATE CLERKS	10	0.42	N/A
GENERAL OFFICE CLERKS	40	1.69	23
ALL OTHER OFFICE MACHINE OPERATORS	10	0.42	N/A
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS	10	0.42	17
MARKING CLERKS	10	0.42	N/A
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	70	2.97	14
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.42	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.42	N/A
SERVICE OCCUPATIONS	40	1.69	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.42	24
GUARDS AND WATCH GUARDS	10	0.42	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	20	0.85	N/A
ELEVATOR OPERATORS	10	0.42	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
BOOT & SHOE CUT STOCK & FINDINGS
SIC = 313
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,720	72.88	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	70	2.97	11
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	10	0.42	16
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	60	2.54	24
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	10	0.42	N/A
MACHINERY MAINTENANCE MECHANICS, TEXTILE MACH	10	0.42	N/A
ALL OTHER MACHINERY MAINTENANCE MECHANICS	10	0.42	N/A
MACHINERY MAINTENANCE WORKERS	10	0.42	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	1.27	16
ELECTRICIANS	10	0.42	N/A
MACHINISTS	10	0.42	24
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	20	0.85	22
ALL OTHER PRECISION WOODWORKERS	30	1.27	N/A
FABRIC, APPAREL PATTERNMAKER, LAYOUT WORKERS	10	0.42	20
SHOE & LEATHER WORKERS, REPAIRERS-PRECISION	300	12.71	19
PLASTIC MOLDING CASTING MACHINE OPER, TENDERS	10	0.42	17
TEXTILE MACHINE OPERATORS AND TENDERS	100	4.24	N/A
EXTRUDING MACH OPER-TENDER,SYNTH,GLASS FIBERS	20	0.85	N/A
TEXTILE BLEACHING & DYEING MACH OPER & TENDER	10	0.42	19
SEWING MACHINE OPERATORS, NON-GARMENT	10	0.42	23
SHOE SEWING MACHINE OPERATORS AND TENDERS	60	2.54	22
CUTTING,SLICING MACH SETTER,SET-UP OPERATORS	90	3.81	29
CUTTING, SLICING MACH OPERATORS AND TENDERS	110	4.66	16
CEMENTING & GLUING MACHINE OPERATOR & TENDERS	90	3.81	20
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	10	0.42	17
EXTRUDING, FORMING, PRESSING MACHINE SETTERS	40	1.69	22
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	30	1.27	33
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	10	0.42	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	160	6.78	N/A
SEWERS, HAND	50	2.12	42
CUTTERS AND TRIMMERS, HAND	80	3.39	23
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	100	4.24	17
ALL OTHER HAND WORKERS	20	0.85	46
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.42	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	10	0.42	9
MACHINE FEEDERS AND OFFBEARERS	60	2.54	30
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	60	2.54	13
HAND PACKERS AND PACKAGERS	20	0.85	20

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
FOOTWEAR, EXCEPT RUBBER
SIC = 314
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	8,900	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	280	3.15	N/A
FINANCIAL MANAGERS	20	0.22	17
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.22	15
PURCHASING MANAGERS	10	0.11	21
INDUSTRIAL PRODUCTION MANAGERS	70	0.79	23
GENERAL MANAGERS AND TOP EXECUTIVES	70	0.79	26
ALL OTHER MANAGERS AND ADMINISTRATORS	90	1.01	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	130	1.46	N/A
ALL OTHER FINANCIAL SPECIALISTS	20	0.22	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	20	0.22	21
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.11	35
COST ESTIMATORS	10	0.11	24
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.11	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	20	0.22	24
DESIGNERS, EXCEPT INTERIOR DESIGNERS	20	0.22	31
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	30	0.34	N/A
SALES AND RELATED OCCUPATIONS	40	0.45	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	10	0.11	31
ALL OTHER SALES AND RELATED WORKERS	30	0.34	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,400	15.73	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	60	0.67	24
SECRETARIES	80	0.90	34
RECEPTIONIST AND INFORMATION CLERKS	10	0.11	19
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.11	35
PROCUREMENT CLERKS	20	0.22	30
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	110	1.24	35
PAYROLL AND TIMEKEEPING CLERKS	70	0.79	9
BILLING, COST AND RATE CLERKS	30	0.34	15
GENERAL OFFICE CLERKS	170	1.91	33
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	20	0.22	30
ALL OTHER OFFICE MACHINE OPERATORS	80	0.90	N/A
SWITCHBOARD OPERATORS	20	0.22	10
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	30	0.34	20
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	150	1.69	24
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	440	4.94	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	120	1.35	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
FOOTWEAR, EXCEPT RUBBER
SIC = 314
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SERVICE OCCUPATIONS	190	2.13	N/A
GUARDS AND WATCH GUARDS	50	0.56	24
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	80	0.90	10
ELEVATOR OPERATORS	20	0.22	20
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	50	0.56	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	6,850	76.97	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	10	0.11	29
SUPERVISORS-PRODUCTION & OPERATING WORKERS	130	1.46	18
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.11	N/A
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	80	0.90	34
MACHINERY MAINTENANCE MECHANICS, SEWING MACH.	30	0.34	13
ALL OTHER MACHINERY MAINTENANCE MECHANICS	10	0.11	N/A
MACHINERY MAINTENANCE WORKERS	10	0.11	33
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	0.34	19
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.11	N/A
SHOE & LEATHER WORKERS, REPAIRERS-PRECISION	2,280	25.62	17
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	80	0.90	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	90	1.01	N/A
SHOE SEWING MACHINE OPERATORS AND TENDERS	1,480	16.63	9
CUTTING,SLICING MACH SETTER,SET-UP OPERATORS	70	0.79	32
CUTTING, SLICING MACH OPERATORS AND TENDERS	130	1.46	33
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	40	0.45	35
CEMENTING & GLUING MACHINE OPERATOR & TENDERS	310	3.48	20
ALL OTHER MACHINE OPERATORS AND TENDERS	700	7.87	N/A
CUTTERS AND TRIMMERS, HAND	90	1.01	27
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	400	4.49	28
ALL OTHER HAND WORKERS	420	4.72	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.11	29
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.11	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	10	0.11	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	110	1.24	33
HAND PACKERS AND PACKAGERS	80	0.90	35
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	220	2.47	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
HANDBAGS & PERSONAL LEATHER GOODS
SIC = 317
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,540	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	130	5.12	N/A
FINANCIAL MANAGERS	10	0.39	20
INDUSTRIAL PRODUCTION MANAGERS	30	1.18	3
GENERAL MANAGERS AND TOP EXECUTIVES	60	2.36	11
ALL OTHER MANAGERS AND ADMINISTRATORS	30	1.18	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	90	3.54	N/A
ACCOUNTANTS AND AUDITORS	10	0.39	12
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.39	17
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.39	N/A
ALL OTHER ENGINEERS	10	0.39	N/A
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	10	0.39	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	30	1.18	N/A
SALES AND RELATED OCCUPATIONS	160	6.30	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	80	3.15	7
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	60	2.36	20
ALL OTHER SALES AND RELATED WORKERS	30	1.18	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	300	11.81	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.39	25
SECRETARIES	40	1.57	15
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	10	0.39	15
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	30	1.18	18
PAYROLL AND TIMEKEEPING CLERKS	30	1.18	4
GENERAL OFFICE CLERKS	30	1.18	8
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.39	20
ALL OTHER OFFICE MACHINE OPERATORS	10	0.39	N/A
SWITCHBOARD OPERATORS	10	0.39	20
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	50	1.97	2
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	60	2.36	9
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	20	0.79	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	0.79	N/A
SERVICE OCCUPATIONS	30	1.18	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	20	0.79	8
ALL OTHER SERVICE WORKERS	10	0.39	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,840	72.44	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	70	2.76	8
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	110	4.33	5
ALL OTHER MACHINERY MAINTENANCE MECHANICS	10	0.39	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.39	17
ALL OTHER PRECISION METAL WORKERS	20	0.79	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
HANDBAGS & PERSONAL LEATHER GOODS
SIC = 317
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
FABRIC, APPAREL PATTERNMAKER, LAYOUT WORKERS	10	0.39	50
SHOE & LEATHER WORKERS, REPAIRERS-PRECISION	270	10.63	21
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	20	0.79	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	20	0.79	N/A
SEWING MACHINE OPERATORS, GARMENT	70	2.76	40
SEWING MACHINE OPERATORS, NON-GARMENT	450	17.72	16
CUTTING,SLICING MACH SETTER,SET-UP OPERATORS	20	0.79	48
CUTTING, SLICING MACH OPERATORS AND TENDERS	50	1.97	8
CEMENTING & GLUING MACHINE OPERATOR & TENDERS	230	9.06	4
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	30	1.18	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	140	5.51	N/A
SEWERS, HAND	40	1.57	23
CUTTERS AND TRIMMERS, HAND	110	4.33	5
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	30	1.18	4
ALL OTHER HAND WORKERS	40	1.57	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	10	0.39	29
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	30	1.18	N/A
HAND PACKERS AND PACKAGERS	60	2.36	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

SIC 32

This major group includes establishments engaged in manufacturing flat glass and other glass products, cement, structural clay products, pottery, concrete, cut stone and other similar products.

Since our last survey of this major group in 1980, average annual employment has declined by 14.5 percent. This decline would appear to be directly associated with the slack in housing starts and the slowdown in other construction.

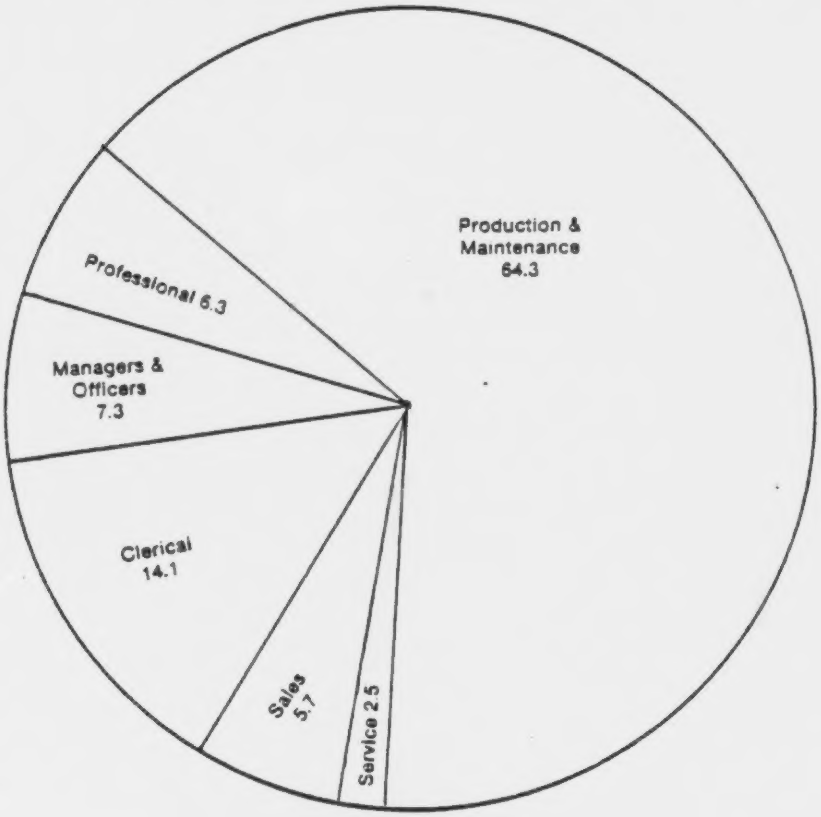
PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

	32	327	329
TOTAL	100%	100%	100%
Managerial & Admin.	7.26	7.39	8.03
Prof. & Tech. Occs.	6.28	3.11	8.98
Sales Occs.	5.66	4.28	7.24
Clerical Occs.	14.07	11.28	16.54
Service Occs.	2.48	1.56	3.31
Prod. & Maint. Occs.	64.42	72.76	56.06

Production and maintenance occupations account for 64 percent of total employment in this industry. Six of the top ten occupations by rank are in production and maintenance and account for 38 percent of the employment in that category and 24 percent of employment industry wide.

STONE, CLAY, AND GLASS PRODUCTS (SIC 32)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Truck Drivers, Heavy or Tractor Trailer	730
2.	All Other Plant and System Operators	570
3.	Crushing, Grinding, Mixing Machine Operators and Tenders	450
4.	General Managers and Top Executives	360
5.	All Other Machine Operators	340
6.	Supervisors - Production and Operating Workers	330
7.	All Other Precision Workers	320
8.	Sales Representatives, Scientific and Services except Retail Products	300
9.	General Office Clerk	300
10.	Secretaries	260

These 10 occupational categories make up 35.0% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
STONE, CLAY AND GLASS PRODUCTS
SIC = 32
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	11,300	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	820	7.26	N/A
FINANCIAL MANAGERS	100	0.88	19
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	70	0.62	21
PURCHASING MANAGERS	10	0.09	25
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	50	0.44	18
ADMINISTRATIVE SERVICES MANAGERS	30	0.27	26
GENERAL MANAGERS AND TOP EXECUTIVES	360	3.19	13
ALL OTHER MANAGERS AND ADMINISTRATORS	200	1.77	11
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	710	6.28	N/A
ACCOUNTANTS AND AUDITORS	60	0.53	15
BUDGET ANALYSTS	20	0.18	21
ALL OTHER FINANCIAL SPECIALISTS	10	0.09	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	40	0.35	16
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.09	29
COST ESTIMATORS	10	0.09	35
ALL OTHER MANAGEMENT SUPPORT WORKERS	60	0.53	N/A
CHEMICAL ENGINEERS	140	1.24	28
CIVIL ENGINEERS, INCLUDING TRAFFIC	10	0.09	25
ELECTRICAL AND ELECTRONIC ENGINEERS	60	0.53	26
ALL OTHER ENGINEERS	80	0.71	N/A
DRAFTERS	30	0.27	22
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	40	0.35	N/A
ALL OTHER PHYSICAL SCIENTISTS	10	0.09	N/A
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	10	0.09	N/A
COMPUTER PROGRAMMERS	20	0.18	24
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	100	0.88	N/A
SALES AND RELATED OCCUPATIONS	640	5.66	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	50	0.44	24
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	300	2.65	19
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	240	2.12	33
ALL OTHER SALES AND RELATED WORKERS	50	0.44	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,590	14.07	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	70	0.62	26
SECRETARIES	260	2.30	14
STENOGRAPHERS	10	0.09	14
RECEPTIONIST AND INFORMATION CLERKS	10	0.09	17
TYPISTS	10	0.09	14
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	20	0.18	29
FILE CLERKS	50	0.44	16

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
STONE, CLAY AND GLASS PRODUCTS
SIC = 32
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	70	0.62	32
PROCUREMENT CLERKS	10	0.09	38
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	190	1.68	13
PAYROLL AND TIMEKEEPING CLERKS	90	0.80	14
BILLING, COST AND RATE CLERKS	40	0.35	32
GENERAL OFFICE CLERKS	300	2.65	17
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.09	9
DATA ENTRY KEYERS, EXCEPT COMPOSING	70	0.62	17
SWITCHBOARD OPERATORS	10	0.09	26
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	50	0.44	17
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	80	0.71	26
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	20	0.18	18
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	110	0.97	16
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.09	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	100	0.88	N/A
SERVICE OCCUPATIONS	280	2.48	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	20	0.18	25
GUARDS AND WATCH GUARDS	50	0.44	21
FOOD & BEVERAGE PREPARATION & SERVICE OCCUP.	20	0.18	28
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	170	1.50	14
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	20	0.18	N/A
ALL OTHER SERVICE WORKERS	20	0.18	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	7,280	64.42	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	70	0.62	25
SUPERVISORS-CONSTRUCTION & EXTRACTIVE WORKERS	60	0.53	25
SUPERVISORS-PRODUCTION & OPERATING WORKERS	330	2.92	15
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	40	0.35	29
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	40	0.35	31
PRECISION INSPECTORS, TESTERS, AND GRADERS	20	0.18	33
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	70	0.62	27
MACHINERY MAINTENANCE MECHANICS	140	1.24	16
MILLWRIGHTS	20	0.18	25
MACHINERY MAINTENANCE WORKERS	30	0.27	24
MAINTENANCE REPAIRERS, GENERAL UTILITY	230	2.04	14
AUTOMOTIVE MECHANICS	110	0.97	15
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	60	0.53	17
MOBILE HEAVY EQUIP MECHANICS, EXCEPT ENGINES	30	0.27	29
CARPENTERS	40	0.35	12
ELECTRICIANS	40	0.35	10
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	10	0.09	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
STONE, CLAY AND GLASS PRODUCTS
SIC = 32
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	30	0.27	16
ALL OTHER CONSTRUCTION TRADES WORKERS	110	0.97	N/A
EXTRACTIVE AND RELATED - INCLUDING BLASTERS	20	0.18	44
TOOL AND DIE MAKERS	20	0.18	9
MACHINISTS	80	0.71	13
SHEET METAL WORKERS	40	0.35	18
ALL OTHER PRECISION WORKERS	320	2.83	N/A
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	30	0.27	17
DRILL & BORE MACH TOOL SETTERS & SET-UP OPER.	80	0.71	24
MILL & PLANING MACH SETTERS & SET-UP OPERATOR	20	0.18	29
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	130	1.15	25
MACHINE TOOL CUTTING OPERATORS & TENDERS	190	1.68	28
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	170	1.50	31
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	190	1.68	31
MACH FORMING OPER & TENDERS, METAL & PLASTIC	40	0.35	25
FURNACE, KILN, OVEN, DRIER, KETTLE OPERATORS	180	1.59	15
CUTTING,SLICING MACH SETTER,SET-UP OPERATORS	30	0.27	24
CUTTING, SLICING MACH OPERATORS AND TENDERS	140	1.24	11
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	80	0.71	22
SEPARATING,FILTERING & STILL MACHINE OPERATOR	10	0.09	45
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	450	3.98	15
EXTRUDING, FORMING, PRESSING MACHINE SETTERS	20	0.18	30
EXTRUDING, FORMING, PRESSING MACHINE OPERATOR	190	1.68	38
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	80	0.71	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	340	3.01	N/A
WELDERS AND CUTTERS	170	1.50	8
CUTTERS AND TRIMMERS, HAND	40	0.35	42
MOLDERS AND CASTERS, HAND	130	1.15	31
PAINTING, COATING & DECORATING WORKERS- HAND	100	0.88	25
GRINDING & POLISHING WORKERS, HAND	60	0.53	21
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	120	1.06	50
ALL OTHER PLANT AND SYSTEM OPERATORS	570	5.04	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	730	6.46	10
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	110	0.97	31
GRADER, DOZER, AND SCRAPER OPERATORS	10	0.09	16
CRANE AND TOWER OPERATORS	10	0.09	47
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	190	1.68	21
CONVEYOR OPERATORS AND TENDERS	40	0.35	30
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	50	0.44	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
STONE, CLAY AND GLASS PRODUCTS
SIC = 32
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
MECHANIC AND REPAIRER HELPERS	230	2.04	31
MACHINE FEEDERS AND OFFBEARERS	120	1.06	25
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	140	1.24	26
HAND PACKERS AND PACKAGERS	30	0.27	39
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	100	0.88	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
CONCRETE,GYPSUM & PLASTIC PRODUCTS
SIC = 327
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,570	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	190	7.39	N/A
FINANCIAL MANAGERS	10	0.39	10
GENERAL MANAGERS AND TOP EXECUTIVES	150	5.84	11
ALL OTHER MANAGERS AND ADMINISTRATORS	30	1.17	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	80	3.11	N/A
ACCOUNTANTS AND AUDITORS	20	0.78	16
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.39	17
CIVIL ENGINEERS, INCLUDING TRAFFIC	10	0.39	18
ALL OTHER ENGINEERS	10	0.39	N/A
DRAFTERS	20	0.78	22
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	10	0.39	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.39	N/A
SALES AND RELATED OCCUPATIONS	110	4.28	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	30	1.17	38
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	30	1.17	24
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	50	1.95	20
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	290	11.28	N/A
SECRETARIES	40	1.56	18
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	70	2.72	11
PAYROLL AND TIMEKEEPING CLERKS	10	0.39	11
BILLING, COST AND RATE CLERKS	10	0.39	20
GENERAL OFFICE CLERKS	60	2.33	15
SWITCHBOARD OPERATORS	10	0.39	N/A
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	50	1.95	18
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.39	N/A
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	10	0.39	41
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	30	1.17	N/A
SERVICE OCCUPATIONS	40	1.56	N/A
GUARDS AND WATCH GUARDS	10	0.39	29
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	30	1.17	28
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,870	72.76	N/A
SUPERVISORS-CONSTRUCTION & EXTRACTIVE WORKERS	10	0.39	39
SUPERVISORS-PRODUCTION & OPERATING WORKERS	130	5.06	20
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	10	0.39	35
MACHINERY MAINTENANCE MECHANICS	50	1.95	23
MACHINERY MAINTENANCE WORKERS	10	0.39	44
MAINTENANCE REPAIRERS, GENERAL UTILITY	50	1.95	18
AUTOMOTIVE MECHANICS	70	2.72	13
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	30	1.17	18

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
CONCRETE, GYPSUM & PLASTIC PRODUCTS
SIC = 327
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
MOBILE HEAVY EQUIP MECHANICS, EXCEPT ENGINES	20	0.78	42
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	10	0.39	N/A
CARPENTERS	10	0.39	17
ALL OTHER CONSTRUCTION TRADES WORKERS	110	4.28	N/A
EXTRACTIVE AND RELATED - INCLUDING BLASTERS	20	0.78	44
FURNACE, KILN, OVEN, DRIER, KETTLE OPERATORS	10	0.39	45
SEPARATING, FILTERING & STILL MACHINE OPERATOR	10	0.39	45
CRUSHING, GRINDING, MIXING MACH OPER & TENDERS	10	0.39	41
EXTRUDING, FORMING, PRESSING MACHINE OPERATOR	20	0.78	39
WELDERS AND CUTTERS	40	1.56	18
MOLDERS AND CASTERS, HAND	90	3.50	33
ALL OTHER PLANT AND SYSTEM OPERATORS	30	1.17	32
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	670	26.07	10
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	100	3.89	31
GRADER, DOZER, AND SCRAPER OPERATORS	10	0.39	18
CRANE AND TOWER OPERATORS	10	0.39	47
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	110	4.28	22
CONVEYOR OPERATORS AND TENDERS	40	1.56	30
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	20	0.78	N/A
MACHINE FEEDERS AND OFFBEARERS	40	1.56	46
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	70	2.72	20
HAND PACKERS AND PACKAGERS	20	0.78	44
ALL OTHER HELPERS, LABORERS, MAT'L MOVERS HAND	50	1.95	42

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISC. NONMETALLIC MINERAL PROD.
SIC = 329
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	6,350	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	510	8.03	N/A
FINANCIAL MANAGERS	80	1.26	23
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	60	0.94	22
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	40	0.63	20
ADMINISTRATIVE SERVICES MANAGERS	20	0.31	29
GENERAL MANAGERS AND TOP EXECUTIVES	110	1.73	24
ALL OTHER MANAGERS AND ADMINISTRATORS	180	2.83	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	570	8.98	N/A
ACCOUNTANTS AND AUDITORS	20	0.31	29
BUDGET ANALYSTS	20	0.31	21
ALL OTHER FINANCIAL SPECIALISTS	10	0.16	29
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	20	0.31	11
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.16	29
ALL OTHER MANAGEMENT SUPPORT WORKERS	60	0.94	N/A
CHEMICAL ENGINEERS	130	2.05	28
ELECTRICAL AND ELECTRONIC ENGINEERS	60	0.94	27
ALL OTHER ENGINEERS	70	1.10	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	50	0.79	N/A
COMPUTER PROGRAMMERS	20	0.31	25
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	100	1.57	N/A
SALES AND RELATED OCCUPATIONS	460	7.24	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	30	0.47	28
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	250	3.94	22
ALL OTHER SALES AND RELATED WORKERS	180	2.83	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,050	16.54	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	60	0.94	28
SECRETARIES	130	2.05	15
STENOGRAPHERS	10	0.16	14
RECEPTIONIST AND INFORMATION CLERKS	10	0.16	24
TYPISTS	10	0.16	17
FILE CLERKS	50	0.79	17
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	60	0.94	36
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	60	0.94	24
PAYROLL AND TIMEKEEPING CLERKS	80	1.26	16
BILLING, COST AND RATE CLERKS	30	0.47	47
GENERAL OFFICE CLERKS	200	3.15	24
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.16	N/A
DATA ENTRY KEYERS, EXCEPT COMPOSING	70	1.10	18
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	70	1.10	29

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISC. NONMETALLIC MINERAL PROD.
SIC = 329
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.16	20
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	80	1.26	17
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	120	1.89	N/A
SERVICE OCCUPATIONS	210	3.31	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	20	0.31	25
GUARDS AND WATCH GUARDS	30	0.47	14
FOOD & BEVERAGE PREPARATION & SERVICE OCCUP.	20	0.31	28
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	100	1.57	13
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	20	0.31	31
ALL OTHER SERVICE WORKERS	20	0.31	31
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,560	56.06	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	60	0.94	28
SUPERVISORS-CCNSTRUCTION & EXTRACTIVE WORKERS	50	0.79	31
SUPERVISORS-PRODUCTION & OPERATING WORKERS	120	1.89	24
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	40	0.63	31
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	40	0.63	31
PRECISION INSPECTORS, TESTERS, AND GRADERS	10	0.16	30
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	40	0.63	32
MACHINERY MAINTENANCE MECHANICS	60	0.94	23
MILLWRIGHTS	20	0.31	25
MACHINERY MAINTENANCE WORKERS	20	0.31	31
MAINTENANCE REPAIRERS, GENERAL UTILITY	120	1.89	7
AUTOMOTIVE MECHANICS	50	0.79	31
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	20	0.31	31
MOBILE HEAVY EQUIP MECHANICS, EXCEPT ENGINES	10	0.16	30
CARPENTERS	20	0.31	17
ELECTRICIANS	40	0.63	10
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	10	0.16	N/A
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	30	0.47	16
TOOL AND DIE MAKERS	20	0.31	9
MACHINISTS	70	1.10	10
SHEET METAL WORKERS	40	0.63	18
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	30	0.47	17
DRILL & BORE MACH TOOL SETTERS & SET-UP OPER.	80	1.26	24
MILL & PLANING MACH SETTERS & SET-UP OPERATOR	20	0.31	29
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	130	2.05	25
MACHINE TOOL CUTTING OPERATORS & TENDERS	180	2.83	29
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	170	2.68	31
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	190	2.99	31
MACH FORMING OPER & TENDERS, METAL & PLASTIC	40	0.63	25

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISC. NONMETALLIC MINERAL PROD.
SIC = 329
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	20	0.31	N/A
TEXTILE MACHINE OPERATORS AND TENDERS	30	0.47	N/A
FURNACE, KILN, OVEN, DRIER, KETTLE OPERATORS	140	2.20	17
CUTTING,SLICING MACH SETTER,SET-UP OPERATORS	20	0.31	31
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	60	0.94	26
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	310	4.88	20
ALL OTHER MACHINE OPERATORS AND TENDERS	190	2.99	N/A
WELDERS AND CUTTERS	60	0.94	19
CUTTERS AND TRIMMERS, HAND	20	0.31	29
GRINDING & POLISHING WORKERS, HAND	40	0.63	22
ALL OTHER HAND WORKERS	10	0.16	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	550	8.66	N/A
MECHANIC AND REPAIRER HELPERS	230	3.62	31
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	90	1.42	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	50	0.79	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

SIC 33

This major group includes establishments engaged in the smelting and refining of ferrous and nonferrous metals from ore, pig, or scrap; in the rolling, drawing, and alloying of ferrous and nonferrous metals; in the manufacturing of castings and other basic products of ferrous and nonferrous metals: and in the manufacture of nails, spikes, and insulated wire and cable.

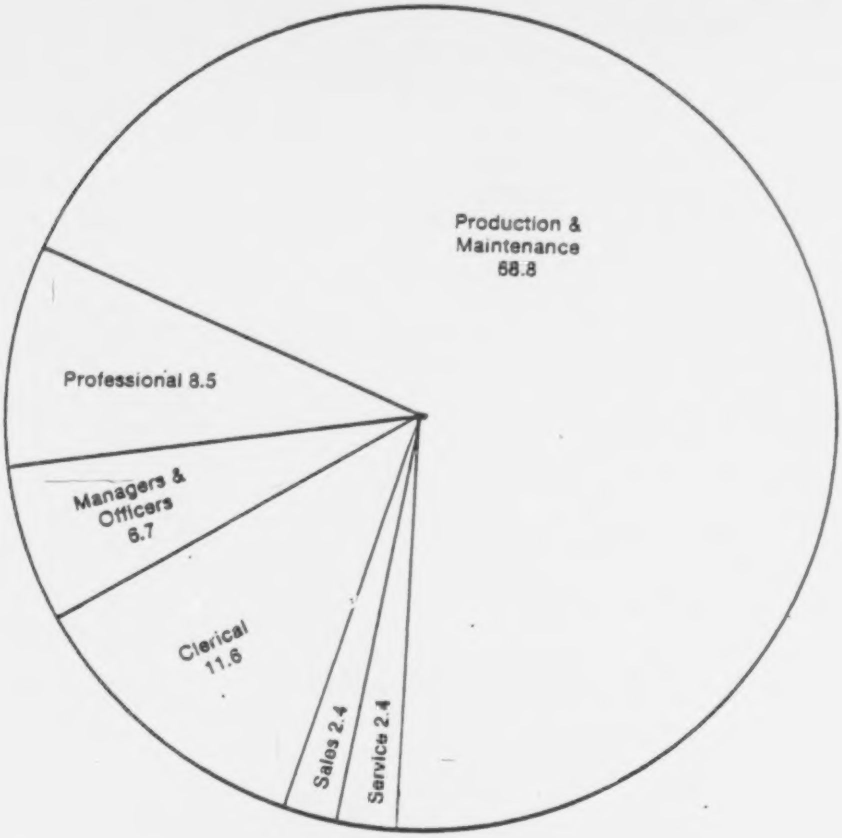
PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

	33	331	332	335	339
TOTAL	100%	100%	100%	100%	100%
Managerial & Administrative Occs.	6.72	6.21	3.97	6.88	8.41
Profess., Paraprofess., Tech. Occs.	8.44	4.97	1.32	8.28	14.95
Sales and Related Occs.	2.34	4.97	0.66	2.19	1.87
Clerical & Administrative Sup. Occs.	11.56	12.52	7.95	11.88	11.21
Service Occs.	2.34	0.62	0.66	2.50	4.67
Agri., Forestry, Fish., Rel. Occ.	0.08	--	--	--	--
Prod., Constr. and Maint., Occs.	68.52	70.81	84.77	68.44	58.88

The main occupational group of primary metal workers is maintenance and production with 8,770, or just over 68 percent of all workers categorized in this group. The occupation of supervisor - production and operating workers had the top employment with 780 people followed by 740 extruding and drawing machine setters and set-up operators and 620 machine forming operators and tenders. The only other occupation with 500 or more workers was all other metal and plastic machine operators.

PRIMARY METAL INDUSTRIES (SIC 33)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Supervisors - Production and Operating Workers	780
2.	Extruding and Drawing Machine Setters and Set-up Operators, Metal and Plastic	740
3.	Machine Forming Operators and Tenders, Metal and Plastic	620
4.	Assemblers and Fabricators - except Machine, Electrical, Electronic, and Precision	570
5.	All Other Metal and Plastic Machine Operators	500
6.	Precision Foundry Mold and Core Makers	440
7.	General Managers and Top Executives	410
8.	All Other Metal and Plastic Machine Setters and Set-up Operators	400
9.	Secretaries	320
10.	Traffic, Shipping, and Receiving Clerks	270

These 10 occupational categories make up 39.5% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
PRIMARY METAL INDUSTRIES
SIC = 33
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	12,800	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	860	6.72	N/A
FINANCIAL MANAGERS	80	0.63	21
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	30	0.23	13
PURCHASING MANAGERS	40	0.31	11
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	80	0.63	22
ADMINISTRATIVE SERVICES MANAGERS	10	0.08	29
INDUSTRIAL PRODUCTION MANAGERS	100	0.78	23
GENERAL MANAGERS AND TOP EXECUTIVES	410	3.20	8
ALL OTHER MANAGERS AND ADMINISTRATORS	110	0.86	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	1,080	8.44	N/A
ACCOUNTANTS AND AUDITORS	90	0.70	11
BUDGET ANALYSTS	20	0.16	11
ALL OTHER FINANCIAL SPECIALISTS	10	0.08	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	80	0.63	15
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	20	0.16	20
COST ESTIMATORS	20	0.16	33
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.16	N/A
METALLURGISTS & METAL.CERAMIC, MATERIALS ENG	120	0.94	11
CHEMICAL ENGINEERS	10	0.08	37
ELECTRICAL AND ELECTRONIC ENGINEERS	30	0.23	41
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	60	0.47	21
SAFETY ENGINEERS, EXCEPT MINING	10	0.08	14
MECHANICAL ENGINEERS	80	0.63	14
ALL OTHER ENGINEERS	100	0.78	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	30	0.23	42
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	10	0.08	38
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	30	0.23	23
DRAFTERS	50	0.39	27
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	80	0.63	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	20	0.16	35
ALL OTHER PHYSICAL SCIENTISTS	10	0.08	N/A
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	100	0.78	30
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	20	0.16	16
COMPUTER PROGRAMMERS	20	0.16	17
COMPUTER PROGRAMMER AIDES	10	0.08	25
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	20	0.16	16
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.08	N/A
SALES AND RELATED OCCUPATIONS	300	2.34	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	50	0.39	32

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PRIMARY METAL INDUSTRIES
SIC = 33
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SALES ENGINEERS	40	0.31	19
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	90	0.70	13
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	100	0.78	13
ALL OTHER SALES AND RELATED WORKERS	20	0.16	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,480	11.56	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	40	0.31	22
SECRETARIES	320	2.50	9
RECEPTIONIST AND INFORMATION CLERKS	20	0.16	22
TYPISTS	60	0.47	21
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	20	0.16	17
FILE CLERKS	40	0.31	45
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	20	0.16	18
PROCUREMENT CLERKS	20	0.16	18
STATISTICAL CLERKS	10	0.08	17
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	180	1.41	8
PAYROLL AND TIMEKEEPING CLERKS	30	0.23	14
BILLING, COST AND RATE CLERKS	40	0.31	16
GENERAL OFFICE CLERKS	150	1.17	10
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.08	18
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.16	29
ALL OTHER OFFICE MACHINE OPERATORS	10	0.08	N/A
SWITCHBOARD OPERATORS	20	0.16	17
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	90	0.70	13
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS	10	0.08	30
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	50	0.39	20
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	270	2.11	21
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	20	0.16	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	30	0.23	N/A
SERVICE OCCUPATIONS	300	2.34	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	50	0.39	41
GUARDS AND WATCH GUARDS	110	0.86	18
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	130	1.02	11
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.08	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	10	0.08	N/A
GARDENERS AND GROUNDSKEEPERS, EXCEPT FARM	10	0.08	35
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	8,770	68.52	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	40	0.31	21
SUPERVISORS-PRODUCTION & OPERATING WORKERS	780	6.09	28
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	10	0.08	20
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	10	0.08	40

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PRIMARY METAL INDUSTRIES
SIC = 33
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRECISION INSPECTORS, TESTERS, AND GRADERS	220	1.72	14
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	130	1.02	19
MACHINERY MAINTENANCE MECHANICS	190	1.48	15
MILLWRIGHTS	30	0.23	20
MACHINERY MAINTENANCE WORKERS	20	0.16	30
MAINTENANCE REPAIRERS, GENERAL UTILITY	230	1.80	11
PRECISION INSTRUMENT REPAIRERS	40	0.31	51
CARPENTERS	10	0.08	28
ELECTRICIANS	60	0.47	13
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	20	0.16	23
TOOL AND DIE MAKERS	140	1.09	6
MACHINISTS	180	1.41	11
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	130	1.02	15
PATTERN AND MODEL MAKERS, METAL	60	0.47	19
SHEET METAL WORKERS	50	0.39	5
ALL OTHER PRECISION METAL WORKERS	10	0.08	N/A
PRECISION FOUNDRY MOLD AND CORE MAKERS	440	3.44	7
ALL OTHER PRECISION WORKERS	20	0.16	N/A
SAW MACH TOOL SETTERS,SET-UP OPER,METAL&PLAST	10	0.08	25
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	20	0.16	26
MILL & PLANING MACH SETTERS & SET-UP OPERATOR	20	0.16	45
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	120	0.94	16
MACHINE TOOL CUTTING OPERATORS & TENDERS	20	0.16	16
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	50	0.39	13
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	100	0.78	18
SHEAR,SLITTER MACHINE SETTER & SET-UP OPER.	80	0.63	N/A
EXTRUDING,DRAWING MACH SETTERS & SET-UP OPER.	740	5.78	17
ROLL MACH SETTER & SET-UP OPER. METAL PLASTIC	100	0.78	9
MACH FORMING OPER & TENDERS, METAL & PLASTIC	620	4.84	24
NUM CONT MACH TOOL OPER, TEND, METAL PLASTIC	50	0.39	N/A
COMB MACH TOOL OPER, TENDERS, METAL & PLASTIC	70	0.55	4
METAL MOLDING & CASTING MACH SETTER,SET-UP OP	90	0.70	23
METAL MOLDING & CASTING MACH OPERATOR,TENDER	90	0.70	29
FOUNDRY MOLD ASSEMBLY AND SHAKEOUT WORKERS	110	0.86	37
HEATING EQUIPMENT SETTERS & SET-UP OPERATORS	40	0.31	10
HEAT TREATING,ANNEAL,TEMPERING OPER. & TEND.	210	1.64	10
FURNACE OPERATORS AND TENDERS	170	1.33	10
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	400	3.13	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	500	3.91	N/A
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	10	0.08	22

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# PRIMARY METAL INDUSTRIES
SIC = 33
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	10	0.08	N/A
CLEAN,WASH,PICKLING EQUIP OPERATORS & TENDERS	20	0.16	N/A
SEPARATING,FILTERING & STILL MACHINE OPERATOR	20	0.16	N/A
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	60	0.47	29
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	60	0.47	24
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	10	0.08	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	180	1.41	N/A
WELDERS AND CUTTERS	220	1.72	36
SOLDERERS AND BRAZERS	30	0.23	29
METAL POURERS & CASTERS, BASIC SHAPES	120	0.94	19
GRINDING & POLISHING WORKERS, HAND	40	0.31	46
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	570	4.45	5
ALL OTHER HAND WORKERS	30	0.23	N/A
STATIONARY ENGINEERS	10	0.08	45
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	100	0.78	36
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	40	0.31	16
CRANE AND TOWER OPERATORS	10	0.08	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	150	1.17	18
MECHANIC AND REPAIRER HELPERS	40	0.31	17
MACHINE FEEDERS AND OFFBEARERS	170	1.33	42
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	240	1.88	17
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	200	1.56	37

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
BLAST FURNACE AND STEEL PRODUCTS
SIC = 331
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,610	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	100	6.21	N/A
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.62	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.62	N/A
INDUSTRIAL PRODUCTION MANAGERS	10	0.62	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	60	3.73	3
ALL OTHER MANAGERS AND ADMINISTRATORS	20	1.24	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	80	4.97	N/A
ACCOUNTANTS AND AUDITORS	20	1.24	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.62	N/A
METALLURGISTS & METAL.CERAMIC, MATERIALS ENG	20	1.24	12
MECHANICAL ENGINEERS	10	0.62	25
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	10	0.62	N/A
DRAFTERS	10	0.62	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.62	49
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	10	0.62	45
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.62	N/A
SALES AND RELATED OCCUPATIONS	80	4.97	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	50	3.11	9
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	30	1.86	11
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	200	12.42	N/A
SECRETARIES	40	2.[illegible]3	8
TYPISTS	20	1.24	N/A
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	10	0.62	35
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	30	1.86	N/A
PAYROLL AND TIMEKEEPING CLERKS	10	0.62	N/A
BILLING, COST AND RATE CLERKS	10	0.62	N/A
GENERAL OFFICE CLERKS	20	1.24	8
ALL OTHER OFFICE MACHINE OPERATORS	10	0.62	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.62	8
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.62	22
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	30	1.86	3
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	1.24	N/A
SERVICE OCCUPATIONS	10	0.62	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	10	0.62	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,140	70.81	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	100	6.21	1
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	**	0.00	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	30	1.86	9

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
BLAST FURNACE AND STEEL PRODUCTS
SIC = 331
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	20	1.24	25
MACHINERY MAINTENANCE MECHANICS	30	1.86	23
MILLWRIGHTS	10	0.62	39
MACHINERY MAINTENANCE WORKERS	10	0.62	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	1.86	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	10	0.62	N/A
ELECTRICIANS	10	0.62	20
TOOL AND DIE MAKERS	30	1.86	12
MACHINISTS	50	3.11	17
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	30	1.86	23
SHEET METAL WORKERS	30	1.86	6
SAW MACH TOOL SETTERS,SET-UP OPER,METAL&PLAST	10	0.62	25
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	10	0.62	31
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	10	0.62	24
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	30	1.86	N/A
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	20	1.24	12
SHEAR,SLITTER MACHINE SETTER & SET-UP OPER.	40	2.48	N/A
EXTRUDING,DRAWING MACH SETTERS & SET-UP OPER.	60	3.73	16
ROLL MACH SETTER & SET-UP OPER. METAL PLASTIC	70	4.35	12
MACH FORMING OPER & TENDERS, METAL & PLASTIC	50	3.11	46
HEATING EQUIPMENT SETTERS & SET-UP OPERATORS	10	0.62	N/A
HEAT TREATING,ANNEAL,TEMPERING OPER. & TEND.	60	3.73	16
FURNACE OPERATORS AND TENDERS	20	1.24	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	30	1.86	N/A
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	10	0.62	N/A
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	10	0.62	N/A
CLEAN,WASH,PICKLING EQUIP OPERATORS & TENDERS	10	0.62	N/A
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	30	1.86	5
WELDERS AND CUTTERS	40	2.48	10
SOLDERERS AND BRAZERS	10	0.62	14
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	40	2.48	9
ALL OTHER HAND WORKERS	20	1.24	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	10	0.62	12
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.62	N/A
CRANE AND TOWER OPERATORS	20	1.24	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	30	1.86	N/A
MACHINE FEEDERS AND OFFBEARERS	40	2.48	10
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	40	2.48	10
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	40	2.48	46

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
IRON AND STEEL FOUNDRIES
SIC = 332
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT NUMBER[1]	EMPLOYMENT PERCENT OF TOTAL	EMPLOYMENT RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,510	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	60	3.97	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	50	3.31	9
ALL OTHER MANAGERS AND ADMINISTRATORS	20	1.32	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	20	1.32	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.66	28
ALL OTHER ENGINEERS	10	0.66	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.66	N/A
SALES AND RELATED OCCUPATIONS	10	0.66	N/A
ALL OTHER SALES AND RELATED WORKERS	10	0.66	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	120	7.95	N/A
SECRETARIES	30	1.99	17
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	30	1.99	22
BILLING, COST AND RATE CLERKS	10	0.66	33
GENERAL OFFICE CLERKS	20	1.32	23
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	20	1.32	11
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.66	N/A
SERVICE OCCUPATIONS	10	0.66	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	10	0.66	20
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,280	84.77	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	150	9.93	9
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	**	0.00	N/A
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	30	1.99	32
MAINTENANCE REPAIRERS, GENERAL UTILITY	70	4.64	16
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	20	1.32	N/A
PATTERN AND MODEL MAKERS, METAL	20	1.32	20
ALL OTHER PRECISION METAL WORKERS	60	3.97	N/A
PRECISION FOUNDRY MOLD AND CORE MAKERS	250	16.56	12
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	70	4.64	27
METAL MOLDING & CASTING MACH OPERATOR,TENDER	70	4.64	35
FURNACE OPERATORS AND TENDERS	50	3.31	7
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	50	3.31	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	100	6.62	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	50	3.31	N/A
METAL POURERS & CASTERS, BASIC SHAPES	50	3.31	24
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	30	1.99	26
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	30	1.99	21
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	70	4.64	31
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	30	1.99	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	80	5.30	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10

TABLE
OCCUPATIONS OF EMPLOYEES
NONFERROUS ROLLING DRAWING
SIC = 335
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	6,400	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	440	6.88	N/A
FINANCIAL MANAGERS	50	0.78	33
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.31	20
PURCHASING MANAGERS	20	0.31	23
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	60	0.94	31
INDUSTRIAL PRODUCTION MANAGERS	80	1.25	28
GENERAL MANAGERS AND TOP EXECUTIVES	130	2.03	22
ALL OTHER MANAGERS AND ADMINISTRATORS	80	1.25	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	530	8.28	N/A
ACCOUNTANTS AND AUDITORS	40	0.63	22
BUDGET ANALYSTS	10	0.16	15
ALL OTHER FINANCIAL SPECIALISTS	10	0.16	37
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	30	0.47	21
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.16	35
COST ESTIMATORS	20	0.31	39
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.16	39
METALLURGISTS & METAL.CERAMIC, MATERIALS ENG	40	0.63	20
ELECTRICAL AND ELECTRONIC ENGINEERS	30	0.47	47
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	40	0.63	34
SAFETY ENGINEERS, EXCEPT MINING	10	0.16	35
MECHANICAL ENGINEERS	40	0.63	24
ALL OTHER ENGINEERS	10	0.16	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	30	0.47	47
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	10	0.16	49
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	10	0.16	32
DRAFTERS	20	0.31	22
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	50	0.78	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	10	0.16	44
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	60	0.94	48
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	20	0.31	17
COMPUTER PROGRAMMERS	10	0.16	28
COMPUTER PROGRAMMER AIDES	**	0.00	N/A
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	10	0.16	26
SALES AND RELATED OCCUPATIONS	140	2.19	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	40	0.63	45
SALES ENGINEERS	20	0.31	26
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	30	0.47	42
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	40	0.63	34

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
NONFERROUS ROLLING DRAWING
SIC = 335
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER SALES AND RELATED WORKERS	20	0.31	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	760	11.88	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	30	0.47	30
SECRETARIES	150	2.34	16
RECEPTIONIST AND INFORMATION CLERKS	10	0.16	32
TYPISTS	40	0.63	38
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	20	0.31	19
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	10	0.16	38
PROCUREMENT CLERKS	10	0.16	29
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	70	1.09	17
PAYROLL AND TIMEKEEPING CLERKS	20	0.31	24
BILLING, COST AND RATE CLERKS	20	0.31	30
GENERAL OFFICE CLERKS	40	0.63	31
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.16	25
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.31	38
ALL OTHER OFFICE MACHINE OPERATORS	10	0.16	N/A
SWITCHBOARD OPERATORS	10	0.16	22
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	70	1.09	18
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	20	0.31	42
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	150	2.34	36
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	20	0.31	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	60	0.94	N/A
SERVICE OCCUPATIONS	160	2.50	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	20	0.31	47
GUARDS AND WATCH GUARDS	60	0.94	29
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	70	1.09	19
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.16	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	4,380	68.44	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	20	0.31	32
SUPERVISORS-PRODUCTION & OPERATING WORKERS	410	6.41	N/A
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	10	0.16	20
PRECISION INSPECTORS, TESTERS, AND GRADERS	150	2.34	15
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	50	0.78	45
MACHINERY MAINTENANCE MECHANICS	80	1.25	26
MILLWRIGHTS	20	0.31	15
MAINTENANCE REPAIRERS, GENERAL UTILITY	80	1.25	23
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	10	0.16	N/A
CARPENTERS	10	0.16	44
ELECTRICIANS	40	0.63	20

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
NONFERROUS ROLLING DRAWING
SIC = 335
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	20	0.31	27
TOOL AND DIE MAKERS	100	1.56	5
MACHINISTS	40	0.63	33
SHEET METAL WORKERS	10	0.16	29
ALL OTHER PRECISION METAL WORKERS	10	0.16	N/A
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	50	0.78	31
SHEAR,SLITTER MACHINE SETTER & SET-UP OPER.	40	0.63	N/A
EXTRUDING,DRAWING MACH SETTERS & SET-UP OPER.	590	9.22	21
ROLL MACH SETTER & SET-UP OPER. METAL PLASTIC	30	0.47	16
MACH FORMING OPER & TENDERS, METAL & PLASTIC	520	8.13	28
HEATING EQUIPMENT SETTERS & SET-UP OPERATORS	20	0.31	N/A
HEAT TREATING,ANNEAL,TEMPERING OPER. & TEND.	30	0.47	31
FURNACE OPERATORS AND TENDERS	10	0.16	20
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	370	5.78	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	430	6.72	N/A
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	30	0.47	47
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	10	0.16	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	160	2.50	N/A
METAL POURERS & CASTERS, BASIC SHAPES	10	0.16	N/A
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	480	7.50	5
ALL OTHER HAND WORKERS	140	2.19	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	10	0.16	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	20	0.31	31
ALL OTHER MOTOR VEHICLE OPERATORS	50	0.78	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	70	1.09	36
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	290	4.53	N/A

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISC. PRIMARY METALS PRODUCTS
SIC = 339
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,070	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	90	8.41	N/A
FINANCIAL MANAGERS	10	0.93	N/A
PURCHASING MANAGERS	10	0.93	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.93	N/A
INDUSTRIAL PRODUCTION MANAGERS	10	0.93	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	60	5.61	9
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.93	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	160	14.95	N/A
ACCOUNTANTS AND AUDITORS	20	1.87	7
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.93	N/A
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.93	N/A
METALLURGISTS & METAL.CERAMIC, MATERIALS ENG	30	2.80	5
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	10	0.93	N/A
SAFETY ENGINEERS, EXCEPT MINING	10	0.93	N/A
MECHANICAL ENGINEERS	10	0.93	N/A
ALL OTHER ENGINEERS	70	6.54	N/A
COMPUTER PROGRAMMERS	10	0.93	N/A
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	10	0.93	N/A
SALES AND RELATED OCCUPATIONS	20	1.87	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	10	0.93	N/A
ALL OTHER SALES AND RELATED WORKERS	10	0.93	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	120	11.21	N/A
SECRETARIES	30	2.80	8
TYPISTS	10	0.93	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	10	0.93	20
PAYROLL AND TIMEKEEPING CLERKS	10	0.93	N/A
GENERAL OFFICE CLERKS	20	1.87	5
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.93	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.93	N/A
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	20	1.87	6
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.93	N/A
SERVICE OCCUPATIONS	50	4.67	N/A
GUARDS AND WATCH GUARDS	20	1.87	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	30	2.80	4

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISC. PRIMARY METALS PRODUCTS
SIC = 339
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	630	58.88	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	30	2.80	21
PRECISION INSPECTORS, TESTERS, AND GRADERS	10	0.93	25
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	10	0.93	32
MACHINERY MAINTENANCE MECHANICS	50	4.67	3
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.93	31
ELECTRICIANS	10	0.93	N/A
MACHINISTS	30	2.80	N/A
ALL OTHER PRECISION METAL WORKERS	10	0.93	N/A
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	10	0.93	48
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	20	1.87	37
EXTRUDING,DRAWING MACH SETTERS & SET-UP OPER.	30	2.80	6
MACH FORMING OPER & TENDERS, METAL & PLASTIC	50	4.67	N/A
NUM CONT MACH TOOL OPER, TEND, METAL PLASTIC	50	4.67	N/A
COMB MACH TOOL OPER, TENDERS, METAL & PLASTIC	60	5.61	N/A
FOUNDRY MOLD ASSEMBLY AND SHAKEOUT WORKERS	30	2.80	N/A
HEATING EQUIPMENT SETTERS & SET-UP OPERATORS	10	0.93	33
HEAT TREATING,ANNEAL,TEMPERING OPER. & TEND.	100	9.35	12
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	20	1.87	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	20	1.87	N/A
WELDERS AND CUTTERS	10	0.93	N/A
SOLDERERS AND BRAZERS	10	0.93	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	10	0.93	50
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.93	25
MECHANIC AND REPAIRER HELPERS	20	1.87	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	30	2.80	47

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

This major group includes establishments engaged in fabricating ferrous and nonferrous metal products such as metal cans, tinware, hand tools, cutlery, general hardware, nonelectric heating apparatus, fabricated structural metal products, metal forgings, metal stampings, ordnance (except vehicles and guided missiles), and a variety of metal and wire products not elsewhere classified.

From 1980 to 1983, employment in the Fabricated Metals industry has declined 7,300 or -13.7 percent going from 53,400 in 1980 to 46,100 in 1983. The employment decline in this industry stands in rather sharp contrast to the small but still positive gain of +0.9 percent over the same time frame for the durables group as a whole, 4,200 jobs representing 81.6 percent of the 1980-1983 employment decline occurred between 1981 and 1982.

PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

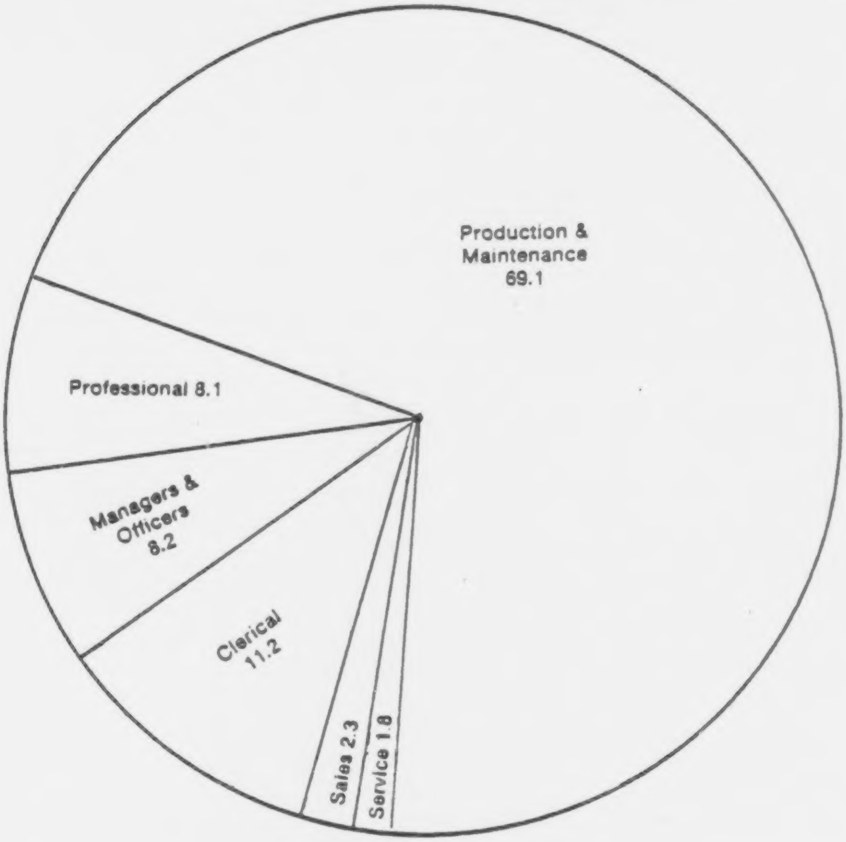
	34	342	344	345	346	347	348
TOTAL	100%	100%	100%	100%	100%	100%	100%
Managerial & Administrative Occs.	8.19	12.94	6.71	6.91	7.08	6.57	4.11
Profess., Paraprofess., Tech. Occs.	8.14	14.09	6.19	4.07	7.64	2.92	6.49
Sales and Related	2.31	1.36	2.99	2.03	1.49	2.68	1.52
Clerical and Administrative Support	11.18	15.03	10.22	8.13	8.38	10.22	7.79
Service	1.81	2.40	0.93	2.03	2.79	1.46	3.25
Prod., Constr. & Maintenance Occs.	69.13	54.28	72.96	77.24	72.63	76.16	76.84

Jobs in the Production, Construction and Maintenance occupational category represent nearly 70 percent of total industry employment ranging from a high of 76.84 percent in SIC 348 (Ordnance and Accessories) to a low of 54.28 percent in SIC 342 (Cutlery, Hand Tools, and General Hardware). The occupational staffing pattern of SIC 342 differs markedly from other industries in the Fabricated Metal Products grouping.

Within the Production, Construction and Maintenance category of the Fabricated Metal Products industry (SIC 34), 1,000 job holders are tool and die makers, 1,690 are machinists, 1,550 are sheet metal workers, 1,130 are machine-tool cutting operators and tenders, 1,910 are machine forming operators and tenders (metal and plastic) and 2,560 are assemblers and fabricators. These 6 occupations alone account for 9,840 jobs or approximately 31 percent of the total production, construction and maintenance occupations.

FABRICATED METAL PRODUCTS, EXCEPT MACHINERY AND TRANSPORTATION EQUIPMENT (SIC 34)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Assemblers and Fabricators except Machine, Electrical, Electronic and Precision	2,560
2.	General Managers and Top Executives	1,920
3.	Machine Forming Operators and Tenders, Metal and Plastic	1,910
4.	Supervisors - Production and Operating Workers	1,820
5.	Machinists	1,690
6.	Sheet Metal Workers	1,550
7.	Secretaries	1,280
8.	Machine Tool Cutting Operators and Tenders	1,130
9.	Production Inspectors, Testers, and Graders	1,020
10.	Tool and Die Makers	1,000

These 10 occupational categories make up 34.7% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
FABRICATED METAL PRODUCTS
SIC = 34
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	45,800	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	3,750	8.19	N/A
FINANCIAL MANAGERS	170	0.37	17
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	100	0.22	15
PURCHASING MANAGERS	100	0.22	21
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	270	0.59	14
ADMINISTRATIVE SERVICES MANAGERS	200	0.44	18
INDUSTRIAL PRODUCTION MANAGERS	490	1.07	9
GENERAL MANAGERS AND TOP EXECUTIVES	1,920	4.19	10
ALL OTHER MANAGERS AND ADMINISTRATORS	500	1.09	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	3,730	8.14	N/A
ACCOUNTANTS AND AUDITORS	320	0.70	14
BUDGET ANALYSTS	50	0.11	23
ALL OTHER FINANCIAL SPECIALISTS	30	0.07	40
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	130	0.28	28
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	70	0.15	12
COST ESTIMATORS	100	0.22	19
ALL OTHER MANAGEMENT SUPPORT WORKERS	230	0.50	18
METALLURGISTS & METAL.CERAMIC, MATERIALS ENG	30	0.07	14
CHEMICAL ENGINEERS	10	0.02	28
CIVIL ENGINEERS, INCLUDING TRAFFIC	10	0.02	N/A
ELECTRICAL AND ELECTRONIC ENGINEERS	70	0.15	44
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	190	0.41	22
SAFETY ENGINEERS, EXCEPT MINING	20	0.04	21
MECHANICAL ENGINEERS	850	1.86	19
ALL OTHER ENGINEERS	120	0.26	7
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	40	0.09	29
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	60	0.13	22
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	60	0.13	36
DRAFTERS	600	1.31	21
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	120	0.26	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	90	0.20	2
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	60	0.13	27
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	10	0.02	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	90	0.20	18
COMPUTER PROGRAMMERS	100	0.22	23
COMPUTER PROGRAMMER AIDES	20	0.04	44
OPER & SYS RESEARCHERS & ANALYST,EXC COMMUNI	70	0.15	34
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	60	0.13	17

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
FABRICATED METAL PRODUCTS
SIC = 34
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
DESIGNERS, EXCEPT INTERIOR DESIGNERS	40	0.09	36
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	80	0.17	N/A
SALES AND RELATED OCCUPATIONS	1,060	2.31	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	100	0.22	38
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	330	0.72	31
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	560	1.22	26
ALL OTHER SALES AND RELATED WORKERS	70	0.15	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	5,120	11.18	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	110	0.24	28
SECRETARIES	1,280	2.79	8
RECEPTIONIST AND INFORMATION CLERKS	50	0.11	24
TYPISTS	80	0.17	26
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	70	0.15	16
FILE CLERKS	30	0.07	48
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	130	0.28	25
PROCUREMENT CLERKS	100	0.22	26
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	860	1.88	11
PAYROLL AND TIMEKEEPING CLERKS	130	0.28	15
BILLING, COST AND RATE CLERKS	140	0.31	20
GENERAL OFFICE CLERKS	740	1.62	14
BILLING, POSTING, CALCULATING MACH. OPERATORS	20	0.04	48
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	90	0.20	21
DATA ENTRY KEYERS, EXCEPT COMPOSING	100	0.22	41
ALL OTHER OFFICE MACHINE OPERATORS	30	0.07	N/A
SWITCHBOARD OPERATORS	40	0.09	30
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	190	0.41	27
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	360	0.79	20
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	350	0.76	47
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	60	0.13	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	160	0.35	N/A
SERVICE OCCUPATIONS	830	1.81	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	50	0.11	26
GUARDS AND WATCH GUARDS	120	0.26	22
FOOD & BEVERAGE PREPARATION & SERVICE OCCUP.	60	0.13	5
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	580	1.27	13
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.02	N/A
ALL OTHER SERVICE WORKERS	10	0.02	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	10	0.02	N/A
GARDENERS AND GROUNDSKEEPERS, EXCEPT FARM	10	0.02	N/A

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# FABRICATED METAL PRODUCTS
SIC = 34
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	31,660	69.13	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	70	0.15	26
SUPERVISORS-PRODUCTION & OPERATING WORKERS	1,820	3.97	7
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	30	0.07	43
PRECISION INSPECTORS, TESTERS, AND GRADERS	700	1.53	17
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	1,020	2.23	10
MACHINERY MAINTENANCE MECHANICS	300	0.66	21
MILLWRIGHTS	90	0.20	21
MACHINERY MAINTENANCE WORKERS	160	0.35	16
MAINTENANCE REPAIRERS, GENERAL UTILITY	580	1.27	15
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	20	0.04	35
HEATING, A/C & REFRIG MECHANICS & INSTALLERS	40	0.09	49
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	130	0.28	N/A
CARPENTERS	40	0.09	32
ELECTRICIANS	140	0.31	26
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	50	0.11	15
ALL OTHER CONSTRUCTION TRADES WORKERS	40	0.09	N/A
TOOL AND DIE MAKERS	1,000	2.18	13
MACHINISTS	1,690	3.69	21
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	410	0.90	39
PATTERN AND MODEL MAKERS, METAL	110	0.24	37
PRECISION LAYOUT WORKERS, METAL	220	0.48	37
SHEET METAL WORKERS	1,550	3.38	24
BOILERMAKERS	10	0.02	12
ALL OTHER PRECISION METAL WORKERS	200	0.44	N/A
PRECISION FOUNDRY MOLD AND CORE MAKERS	30	0.07	N/A
ALL OTHER PRECISION WORKERS	60	0.13	N/A
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	880	1.92	21
DRILL & BORE MACH TOOL SETTERS & SET-UP OPER.	290	0.63	44
MILL & PLANING MACH SETTERS & SET-UP OPERATOR	350	0.76	19
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	480	1.05	26
MACHINE TOOL CUTTING OPERATORS & TENDERS	1,130	2.47	19
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	390	0.85	24
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	470	1.03	40
SHEAR,SLITTER MACHINE SETTER & SET-UP OPER.	310	0.68	27
MACH FORMING OPER & TENDERS, METAL & PLASTIC	1,910	4.17	24
MACH TOOL SETTER & SET-UP OPER, METAL PLASTIC	300	0.66	25
COMB MACH TOOL OPER, TENDERS, METAL & PLASTIC	610	1.33	44
WELDING MACHINE SETTERS AND SET-UP OPERATORS	570	1.24	28
WELDING MACHINE OPERATORS AND TENDERS	470	1.03	37

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
FABRICATED METAL PRODUCTS
SIC = 34
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
METAL FABRICATORS, STRUCTURAL METAL PRODUCTS	640	1.40	39
ELECTROLYTIC PLATING, COATING MACHINE SETTERS	420	0.92	17
ELECTROLYTIC PLATING, COATING MACH OPERATORS	510	1.11	14
NONELECTROLYTIC PLATING, COATING MACH SETTERS	60	0.13	42
NONELECTROLYTIC PLATING,COATING MACH OPERATOR	130	0.28	31
FURNACE OPERATORS AND TENDERS	50	0.11	9
HEATERS, METAL AND PLASTIC	20	0.04	21
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	710	1.55	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	600	1.31	N/A
WOODWORK MACH SETTER, SET-UP OPER EXC SAWING	10	0.02	N/A
WOODWORKING MACHINE OPER, TENDERS EXC SAWING	30	0.07	22
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	100	0.22	N/A
BOILER OPERATORS AND TENDERS, LOW PRESSURE	10	0.02	25
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	280	0.61	25
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	460	1.00	21
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	10	0.02	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	450	0.98	N/A
FITTERS,STRUCTURAL METAL-PRECISION	370	0.81	21
ALL OTHER PRECISION ASSEMBLERS, METAL	400	0.87	N/A
WELDERS AND CUTTERS	290	0.63	32
GRINDING & POLISHING WORKERS, HAND	860	1.88	33
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	2,560	5.59	22
ALL OTHER HAND WORKERS	160	0.35	N/A
STATIONARY ENGINEERS	30	0.07	18
ALL OTHER PLANT AND SYSTEM OPERATORS	20	0.04	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	130	0.28	49
ALL OTHER MOTOR VEHICLE OPERATORS	170	0.37	N/A
ALL OTHER TRANSPORTATION AND RELATED WORKERS	10	0.02	N/A
CRANE AND TOWER OPERATORS	30	0.07	39
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	400	0.87	19
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	20	0.04	N/A
MECHANIC AND REPAIRER HELPERS	80	0.17	43
CONSTRUCTION TRADES, EXTRACTIVE WORKER HELPER	30	0.07	46
MACHINE FEEDERS AND OFFBEARERS	430	0.94	47
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	690	1.51	17
HAND PACKERS AND PACKAGERS	850	1.86	20
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	880	1.92	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
CUTLERY, HAND TOOLS & HARDWARE
SIC = 342
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	9,580	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,240	12.94	N/A
FINANCIAL MANAGERS	50	0.52	22
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	40	0.42	27
PURCHASING MANAGERS	30	0.31	34
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	150	1.57	11
ADMINISTRATIVE SERVICES MANAGERS	150	1.57	8
INDUSTRIAL PRODUCTION MANAGERS	300	3.13	8
GENERAL MANAGERS AND TOP EXECUTIVES	290	3.03	40
ALL OTHER MANAGERS AND ADMINISTRATORS	230	2.40	15
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	1,350	14.09	N/A
ACCOUNTANTS AND AUDITORS	80	0.84	23
BUDGET ANALYSTS	30	0.31	N/A
ALL OTHER FINANCIAL SPECIALISTS	20	0.21	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	20	0.21	22
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	40	0.42	15
COST ESTIMATORS	20	0.21	35
ALL OTHER MANAGEMENT SUPPORT WORKERS	150	1.57	13
METALLURGISTS & METAL.CERAMIC, MATERIALS ENG	10	0.10	40
ELECTRICAL AND ELECTRONIC ENGINEERS	20	0.21	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	70	0.73	24
SAFETY ENGINEERS, EXCEPT MINING	10	0.10	40
ALL OTHER ENGINEERS	310	3.24	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	10	0.10	14
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	20	0.21	40
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	30	0.31	26
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	170	1.77	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	80	0.84	N/A
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	30	0.31	44
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	10	0.10	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	60	0.63	9
COMPUTER PROGRAMMERS	40	0.42	23
OPER & SYS RESEARCHERS & ANALYST,EXC COMMUNI	60	0.63	39
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.10	N/A
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	20	0.21	34
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	10	0.10	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	40	0.42	N/A
SALES AND RELATED OCCUPATIONS	130	1.36	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	20	0.21	N/A
ALL OTHER SALES AND RELATED WORKERS	110	1.15	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
CUTLERY, HAND TOOLS & HARDWARE
SIC = 342
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,440	15.03	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	20	0.21	N/A
SECRETARIES	400	4.18	13
RECEPTIONIST AND INFORMATION CLERKS	10	0.10	42
TYPISTS	20	0.21	29
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	30	0.31	24
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	50	0.52	46
PROCUREMENT CLERKS	30	0.31	13
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	150	1.57	42
PAYROLL AND TIMEKEEPING CLERKS	30	0.31	37
BILLING, COST AND RATE CLERKS	50	0.52	21
GENERAL OFFICE CLERKS	150	1.57	47
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	40	0.42	25
ALL OTHER OFFICE MACHINE OPERATORS	40	0.42	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	30	0.31	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	150	1.57	34
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	100	1.04	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	130	1.36	N/A
SERVICE OCCUPATIONS	230	2.40	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.10	N/A
GUARDS AND WATCH GUARDS	40	0.42	N/A
FOOD & BEVERAGE PREPARATION & SERVICE OCCUP.	40	0.42	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	140	1.46	47
ALL OTHER SERVICE WORKERS	10	0.10	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	5,200	54.28	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	250	2.61	27
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.10	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	70	0.73	N/A
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	360	3.76	18
MACHINERY MAINTENANCE MECHANICS	110	1.15	23
MACHINERY MAINTENANCE WORKERS	30	0.31	37
MAINTENANCE REPAIRERS, GENERAL UTILITY	130	1.36	46
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	30	0.31	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	70	0.73	N/A
TOOL AND DIE MAKERS	260	2.71	37
ALL OTHER PRECISION METAL WORKERS	900	9.39	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	540	5.64	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	1,030	10.75	N/A
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	10	0.10	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	110	1.15	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
CUTLERY, HAND TOOLS & HARDWARE
SIC = 342
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER PRECISION ASSEMBLERS, METAL	10	0.10	N/A
ALL OTHER HAND WORKERS	960	10.02	N/A
STATIONARY ENGINEERS	20	0.21	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	**	0.00	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.10	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	30	0.31	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	70	0.73	N/A
HAND PACKERS AND PACKAGERS	160	1.67	34
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	60	0.63	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
STRUCTURAL METAL PRODUCTS
SIC = 344
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	9,690	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	650	6.71	N/A
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.10	N/A
PURCHASING MANAGERS	20	0.21	40
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	20	0.21	23
ADMINISTRATIVE SERVICES MANAGERS	10	0.10	N/A
INDUSTRIAL PRODUCTION MANAGERS	20	0.21	21
GENERAL MANAGERS AND TOP EXECUTIVES	540	5.57	12
ALL OTHER MANAGERS AND ADMINISTRATORS	50	0.52	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	600	6.19	N/A
ACCOUNTANTS AND AUDITORS	80	0.83	31
COST ESTIMATORS	20	0.21	44
ALL OTHER MANAGEMENT SUPPORT WORKERS	30	0.31	N/A
MECHANICAL ENGINEERS	180	1.86	35
ALL OTHER ENGINEERS	40	0.41	N/A
DRAFTERS	210	2.17	30
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	0.21	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	20	0.21	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.10	N/A
SALES AND RELATED OCCUPATIONS	290	2.99	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	10	0.10	14
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	90	0.93	39
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	170	1.75	50
ALL OTHER SALES AND RELATED WORKERS	30	0.31	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	990	10.22	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.10	17
SECRETARIES	320	3.30	15
RECEPTIONIST AND INFORMATION CLERKS	10	0.10	N/A
TYPISTS	10	0.10	23
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	10	0.10	17
PROCUREMENT CLERKS	10	0.10	42
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	240	2.48	16
BILLING, COST AND RATE CLERKS	20	0.21	47
GENERAL OFFICE CLERKS	240	2.48	20
ALL OTHER OFFICE MACHINE OPERATORS	30	0.31	N/A
ALL OTHER COMMUNICATIONS EQUIPMENT OPERATORS	10	0.10	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	20	0.21	23
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.10	34
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	30	0.31	49
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	0.21	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
STRUCTURAL METAL PRODUCTS
SIC = 344
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SERVICE OCCUPATIONS	90	0.93	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	80	0.83	26
ALL OTHER SERVICE WORKERS	10	0.10	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	7,070	72.96	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	440	4.54	11
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.10	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	90	0.93	33
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	90	0.93	43
ALL OTHER MACHINERY MAINTENANCE MECHANICS	20	0.21	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	60	0.62	31
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	10	0.10	44
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.10	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	120	1.24	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	30	0.31	N/A
TOOL AND DIE MAKERS	50	0.52	35
MACHINISTS	200	2.06	44
PRECISION LAYOUT WORKERS, METAL	180	1.86	44
SHEET METAL WORKERS	1,380	14.24	26
PRECISION WOODWORKERS	10	0.10	N/A
PRECISION FOUNDRY MOLD AND CORE MAKERS	30	0.31	N/A
ALL OTHER PRECISION WORKERS	10	0.10	N/A
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	30	0.31	33
MILL & PLANING MACH SETTERS & SET-UP OPERATOR	40	0.41	N/A
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	90	0.93	41
MACHINE TOOL CUTTING OPERATORS & TENDERS	60	0.62	43
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	160	1.65	39
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	250	2.58	44
SHEAR,SLITTER MACHINE SETTER & SET-UP OPER.	140	1.44	28
NUM CONT MACH TOOL OPER, TEND, METAL PLASTIC	10	0.10	35
WELDING MACHINE SETTERS AND SET-UP OPERATORS	350	3.61	31
WELDING MACHINE OPERATORS AND TENDERS	290	2.99	40
METAL FABRICATORS, STRUCTURAL METAL PRODUCTS	580	5.99	40
HEAT TREATING,ANNEAL,TEMPERING OPER. & TEND.	20	0.21	N/A
FURNACE OPERATORS AND TENDERS	20	0.21	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	150	1.55	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	340	3.51	N/A
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	90	0.93	50
CLEAN,WASH,PICKLING EQUIP OPERATORS & TENDERS	10	0.10	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	110	1.14	48
FITTERS,STRUCTURAL METAL-PRECISION	130	1.34	41

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# STRUCTURAL METAL PRODUCTS
SIC = 344
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
WELDERS AND CUTTERS	160	1.65	29
GRINDING & POLISHING WORKERS, HAND	220	2.27	47
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	610	6.30	43
ALL OTHER HAND WORKERS	10	0.10	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	10	0.10	48
ALL OTHER MOTOR VEHICLE OPERATORS	30	0.31	N/A
CRANE AND TOWER OPERATORS	10	0.10	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	80	0.83	38
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	150	1.55	33
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	50	0.52	N/A
HAND PACKERS AND PACKAGERS	110	1.14	48
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	50	0.52	58

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
SCREW MACHINE PRODUCTS, BOLTS ETC.
SIC = 345
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,460	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	170	6.91	N/A
FINANCIAL MANAGERS	10	0.41	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	160	6.50	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	100	4.07	N/A
ACCOUNTANTS AND AUDITORS	10	0.41	13
COST ESTIMATORS	10	0.41	24
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.41	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	10	0.41	N/A
MECHANICAL ENGINEERS	40	1.63	24
DRAFTERS	20	0.81	18
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.41	N/A
SALES AND RELATED OCCUPATIONS	50	2.03	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	10	0.41	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	10	0.41	33
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	30	1.22	13
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	200	8.13	N/A
SECRETARIES	50	2.03	17
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	50	2.03	12
BILLING, COST AND RATE CLERKS	10	0.41	45
GENERAL OFFICE CLERKS	50	2.03	16
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.41	14
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.41	N/A
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	10	0.41	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	0.81	N/A
SERVICE OCCUPATIONS	50	2.03	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.41	47
GUARDS AND WATCH GUARDS	10	0.41	14
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	30	1.22	18
ALL OTHER SERVICE WORKERS	10	0.41	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,900	77.24	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	110	4.47	13
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.41	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	60	2.44	25
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	40	1.63	11
MACHINERY MAINTENANCE MECHANICS	10	0.41	11
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	1.22	13
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.41	N/A
TOOL AND DIE MAKERS	70	2.85	10
MACHINISTS	330	13.41	13

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
SCREW MACHINE PRODUCTS, BOLTS ETC.
SIC = 345
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	20	0.81	20
ALL OTHER PRECISION METAL WORKERS	10	0.41	N/A
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	230	9.35	14
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	20	0.81	14
MACHINE TOOL CUTTING OPERATORS & TENDERS	210	8.54	26
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	20	0.81	34
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	10	0.41	36
MACH FORMING OPER & TENDERS, METAL & PLASTIC	30	1.22	39
MACH TOOL SETTER & SET-UP OPER, METAL PLASTIC	70	2.85	17
COMB MACH TOOL OPER, TENDERS, METAL & PLASTIC	140	5.69	25
WELDING MACHINE SETTERS AND SET-UP OPERATORS	10	0.41	46
SOLDER,BRAZING MACH SETTER, SET-UP OPERATORS	10	0.41	N/A
SOLDERING,BRAZING MACH OPERATORS AND TENDERS	10	0.41	N/A
ELECTROLYTIC PLATING, COATING MACH OPERATORS	10	0.41	37
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	60	2.44	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	10	0.41	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	10	0.41	N/A
ALL OTHER PRECISION ASSEMBLERS, METAL	10	0.41	N/A
GRINDING & POLISHING WORKERS, HAND	20	0.81	28
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	110	4.47	28
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.41	48
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	20	0.81	22
MACHINE FEEDERS AND OFFBEARERS	30	1.22	39
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	60	2.44	13
HAND PACKERS AND PACKAGERS	60	2.44	17
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	50	2.03	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
FORGINGS AND STAMPINGS
SIC = 346
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	5,370	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	380	7.08	N/A
FINANCIAL MANAGERS	20	0.37	5
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.37	14
PURCHASING MANAGERS	10	0.19	22
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	20	0.37	13
INDUSTRIAL PRODUCTION MANAGERS	60	1.12	4
GENERAL MANAGERS AND TOP EXECUTIVES	170	3.17	13
ALL OTHER MANAGERS AND ADMINISTRATORS	80	1.49	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	410	7.64	N/A
ACCOUNTANTS AND AUDITORS	30	0.56	9
ALL OTHER FINANCIAL SPECIALISTS	10	0.19	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	30	0.56	32
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.19	20
COST ESTIMATORS	10	0.19	34
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.37	37
METALLURGISTS & METAL.CERAMIC, MATERIALS ENG	20	0.37	5
ELECTRICAL AND ELECTRONIC ENGINEERS	10	0.19	11
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	50	0.93	11
SAFETY ENGINEERS, EXCEPT MINING	10	0.19	28
MECHANICAL ENGINEERS	40	0.74	23
ALL OTHER ENGINEERS	20	0.37	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	10	0.19	N/A
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	20	0.37	N/A
DRAFTERS	30	0.56	12
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	50	0.93	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.19	N/A
COMPUTER PROGRAMMERS	10	0.19	11
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	20	0.37	6
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.19	20
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.19	N/A
SALES AND RELATED OCCUPATIONS	80	1.49	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	30	0.56	25
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	40	0.74	39
ALL OTHER SALES AND RELATED WORKERS	**	0.00	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	450	8.38	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	20	0.37	23
SECRETARIES	110	2.05	14
STENOGRAPHERS	10	0.19	N/A
RECEPTIONIST AND INFORMATION CLERKS	10	0.19	22

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
FORGINGS AND STAMPINGS
SIC = 346
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TYPISTS	10	0.19	17
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.19	12
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	10	0.19	14
PROCUREMENT CLERKS	10	0.19	18
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	60	1.12	19
PAYROLL AND TIMEKEEPING CLERKS	20	0.37	16
BILLING, COST AND RATE CLERKS	10	0.19	17
GENERAL OFFICE CLERKS	40	0.74	28
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.19	16
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.19	14
ALL OTHER OFFICE MACHINE OPERATORS	10	0.19	N/A
SWITCHBOARD OPERATORS	10	0.19	18
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	30	0.56	14
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	50	0.93	19
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	20	0.37	14
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.19	N/A
SERVICE OCCUPATIONS	150	2.79	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	20	0.37	45
GUARDS AND WATCH GUARDS	30	0.56	5
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	90	1.68	14
ALL OTHER SERVICE WORKERS	10	0.19	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,900	72.63	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	20	0.37	26
SUPERVISORS-PRODUCTION & OPERATING WORKERS	200	3.72	14
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	10	0.19	20
PRECISION INSPECTORS, TESTERS, AND GRADERS	100	1.86	9
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	130	2.42	9
MACHINERY MAINTENANCE MECHANICS	20	0.37	28
MILLWRIGHTS	50	0.93	14
MACHINERY MAINTENANCE WORKERS	40	0.74	13
MAINTENANCE REPAIRERS, GENERAL UTILITY	80	1.49	23
AUTOMOTIVE MECHANICS	10	0.19	N/A
HEATING, A/C & REFRIG MECHANICS & INSTALLERS	10	0.19	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	20	0.37	N/A
ELECTRICIANS	20	0.37	4
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	20	0.37	N/A
TOOL AND DIE MAKERS	360	6.70	16
MACHINISTS	100	1.86	12
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	30	0.56	19
PATTERN AND MODEL MAKERS, METAL	10	0.19	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# FORGINGS AND STAMPINGS
SIC = 346
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRECISION LAYOUT WORKERS, METAL	20	0.37	41
BOILERMAKERS	10	0.19	N/A
ALL OTHER PRECISION METAL WORKERS	160	2.98	N/A
ALL OTHER PRECISION WORKERS	10	0.19	N/A
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	20	0.37	33
DRILL & BORE MACH TOOL SETTERS & SET-UP OPER.	10	0.19	19
MILL & PLANING MACH SETTERS & SET-UP OPERATOR	10	0.19	49
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	70	1.30	40
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	100	1.86	29
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	110	2.05	28
SHEAR,SLITTER MACHINE SETTER & SET-UP OPER.	60	1.12	19
FORG MACH SETTER & SET-UP OPER, METAL PLASTIC	130	2.42	26
MACH FORMING OPER & TENDERS, METAL & PLASTIC	770	14.34	25
MACH TOOL SETTER & SET-UP OPER, METAL PLASTIC	20	0.37	29
COMB MACH TOOL OPER, TENDERS, METAL & PLASTIC	90	1.68	9
WELDING MACHINE SETTERS AND SET-UP OPERATORS	20	0.37	35
ELECTROLYTIC PLATING, COATING MACHINE SETTERS	10	0.19	N/A
ELECTROLYTIC PLATING, COATING MACH OPERATORS	20	0.37	43
HEAT TREATING,ANNEAL,TEMPERING OPER. & TEND.	10	0.19	N/A
FURNACE OPERATORS AND TENDERS	10	0.19	N/A
HEATERS, METAL AND PLASTIC	20	0.37	21
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	60	1.12	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	110	2.05	N/A
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	10	0.19	45
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	120	2.23	49
CLEAN,WASH,PICKLING EQUIP OPERATORS & TENDERS	10	0.19	19
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	10	0.19	20
WELDERS AND CUTTERS	40	0.74	9
GRINDING & POLISHING WORKERS, HAND	30	0.56	6
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	180	3.35	25
ALL OTHER HAND WORKERS	40	0.74	N/A
STATIONARY ENGINEERS	10	0.19	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	20	0.37	47
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.19	14
ALL OTHER MOTOR VEHICLE OPERATORS	40	0.74	N/A
CRANE AND TOWER OPERATORS	10	0.19	10
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	60	1.12	19
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	10	0.19	N/A
MECHANIC AND REPAIRER HELPERS	10	0.19	14
CONSTRUCTION TRADES, EXTRACTIVE WORKER HELPER	30	0.56	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
FORGINGS AND STAMPINGS
SIC = 346
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
MACHINE FEEDERS AND OFFBEARERS	10	0.19	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	60	1.12	19
HAND PACKERS AND PACKAGERS	70	1.30	37
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	100	1.86	31

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
METAL INDUSTRIES, N.E.C.
SIC = 347
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,110	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	270	6.57	N/A
FINANCIAL MANAGERS	10	0.24	32
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.24	32
INDUSTRIAL PRODUCTION MANAGERS	10	0.24	28
GENERAL MANAGERS AND TOP EXECUTIVES	240	5.84	7
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.24	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	120	2.92	N/A
ACCOUNTANTS AND AUDITORS	30	0.73	26
COST ESTIMATORS	10	0.24	32
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.24	N/A
MECHANICAL ENGINEERS	20	0.49	21
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	0.49	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	10	0.24	24
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	30	0.73	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.24	N/A
SALES AND RELATED OCCUPATIONS	110	2.68	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	50	1.22	20
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	60	1.46	18
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	420	10.22	N/A
SECRETARIES	120	2.92	11
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	130	3.16	11
BILLING, COST AND RATE CLERKS	10	0.24	29
GENERAL OFFICE CLERKS	70	1.70	17
ALL OTHER OFFICE MACHINE OPERATORS	10	0.24	N/A
SWITCHBOARD OPERATORS	10	0.24	17
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	20	0.49	29
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	30	0.73	25
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	40	0.97	N/A
SERVICE OCCUPATIONS	60	1.46	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	60	1.46	11
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,130	76.16	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	250	6.08	10
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.24	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	90	2.19	32
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	90	2.19	25
MACHINERY MAINTENANCE MECHANICS	30	0.73	16
MACHINERY MAINTENANCE WORKERS	10	0.24	31
MAINTENANCE REPAIRERS, GENERAL UTILITY	100	2.43	12
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.24	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
METAL INDUSTRIES, N.E.C.
SIC = 347
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.24	N/A
ALL OTHER PRECISION METAL WORKERS	110	2.68	N/A
ALL OTHER PRECISION WORKERS	30	0.73	N/A
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	50	1.22	34
WELDING MACHINE OPERATORS AND TENDERS	10	0.24	34
ELECTROLYTIC PLATING, COATING MACHINE SETTERS	360	8.76	19
ELECTROLYTIC PLATING, COATING MACH OPERATORS	440	10.71	16
NONELECTROLYTIC PLATING,COATING MACH OPERATOR	90	2.19	30
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	120	2.92	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	100	2.43	N/A
ALL OTHER PRINTING PRESS SETTERS, SET-UP OPER	30	0.73	N/A
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	20	0.49	N/A
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	90	2.19	26
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	250	6.08	25
ALL OTHER MACHINE OPERATORS AND TENDERS	60	1.46	N/A
ALL OTHER PRECISION ASSEMBLERS, METAL	30	0.73	N/A
GRINDING & POLISHING WORKERS, HAND	150	3.65	26
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	70	1.70	34
ALL OTHER HAND WORKERS	30	0.73	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	20	0.49	35
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	30	0.73	26
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.24	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	50	1.22	26
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	90	2.19	19
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	70	1.70	N/A
HAND PACKERS AND PACKAGERS	240	5.84	20

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ORDNANCE AND ACCESSORIES
SIC = 348
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,620	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	190	4.11	N/A
FINANCIAL MANAGERS	20	0.43	5
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.22	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	20	0.43	14
INDUSTRIAL PRODUCTION MANAGERS	60	1.30	5
GENERAL MANAGERS AND TOP EXECUTIVES	20	0.43	7
ALL OTHER MANAGERS AND ADMINISTRATORS	60	1.30	5
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	300	6.49	N/A
ACCOUNTANTS AND AUDITORS	10	0.22	N/A
ALL OTHER FINANCIAL SPECIALISTS	10	0.22	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.22	N/A
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.22	14
COST ESTIMATORS	10	0.22	20
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.22	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	30	0.65	10
SAFETY ENGINEERS, EXCEPT MINING	10	0.22	N/A
MECHANICAL ENGINEERS	80	1.73	4
ALL OTHER ENGINEERS	10	0.22	N/A
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	20	0.43	N/A
DRAFTERS	40	0.87	10
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	30	0.65	10
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.22	N/A
COMPUTER PROGRAMMERS	10	0.22	N/A
OPER & SYS RESEARCHERS & ANALYST,EXC COMMUNI	10	0.22	20
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	10	0.22	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.22	N/A
SALES AND RELATED OCCUPATIONS	70	1.52	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	60	1.30	18
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	10	0.22	18
ALL OTHER SALES AND RELATED WORKERS	10	0.22	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	360	7.79	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	20	0.43	10
SECRETARIES	50	1.08	8
RECEPTIONIST AND INFORMATION CLERKS	10	0.22	17
TYPISTS	10	0.22	14
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.22	N/A
FILE CLERKS	10	0.22	14
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	20	0.43	14
PROCUREMENT CLERKS	10	0.22	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ORDNANCE AND ACCESSORIES
SIC = 348
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT NUMBER[1]	EMPLOYMENT PERCENT OF TOTAL	EMPLOYMENT RELATIVE ERROR %
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	20	0.43	7
PAYROLL AND TIMEKEEPING CLERKS	40	0.87	14
BILLING, COST AND RATE CLERKS	10	0.22	N/A
GENERAL OFFICE CLERKS	20	0.43	8
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.22	14
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.43	6
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	20	0.43	8
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS	10	0.22	19
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	60	1.30	7
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	20	0.43	14
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.22	N/A
SERVICE OCCUPATIONS	150	3.25	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.22	N/A
GUARDS AND WATCH GUARDS	40	0.87	8
FOOD & BEVERAGE PREPARATION & SERVICE OCCUP.	20	0.43	19
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	90	1.95	12
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,550	76.84	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	40	0.87	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	190	4.11	8
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	10	0.22	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	170	3.68	10
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	220	4.76	19
MACHINERY MAINTENANCE MECHANICS	40	0.87	11
MACHINERY MAINTENANCE WORKERS	20	0.43	6
MAINTENANCE REPAIRERS, GENERAL UTILITY	40	0.87	27
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.22	N/A
CARPENTERS	10	0.22	13
ELECTRICIANS	30	0.65	20
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	20	0.43	18
TOOL AND DIE MAKERS	90	1.95	6
MACHINISTS	80	1.73	17
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	70	1.52	12
ALL OTHER PRECISION METAL WORKERS	170	3.68	N/A
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	320	6.93	24
DRILL & BORE MACH TOOL SETTERS & SET-UP OPER.	20	0.43	39
MILL & PLANING MACH SETTERS & SET-UP OPERATOR	280	6.06	19
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	40	0.87	3
MACHINE TOOL CUTTING OPERATORS & TENDERS	520	11.26	15
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	10	0.22	29
FORG MACH SETTER & SET-UP OPER, METAL PLASTIC	20	0.43	10

---

1 - Summed parts may not equal totals because of roundirg.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ORDNANCE AND ACCESSORIES
SIC = 348
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
MACH FORMING OPER & TENDERS, METAL & PLASTIC	90	1.95	27
NUM CONT MACH TOOL OPER, TEND, METAL PLASTIC	40	0.87	12
MACH TOOL SETTER & SET-UP OPER, METAL PLASTIC	30	0.65	34
ELECTROLYTIC PLATING, COATING MACH OPERATORS	20	0.43	19
HEAT TREATING,ANNEAL,TEMPERING OPER. & TEND.	10	0.22	16
FURNACE OPERATORS AND TENDERS	20	0.43	20
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	30	0.65	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	10	0.22	N/A
WOODWORK MACH SETTER, SET-UP OPER EXC SAWING	10	0.22	N/A
WOODWORKING MACHINE OPER, TENDERS EXC SAWING	30	0.65	22
BOILER OPERATORS AND TENDERS, LOW PRESSURE	10	0.22	28
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	20	0.43	19
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	10	0.22	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	10	0.22	N/A
FITTERS,STRUCTURAL METAL-PRECISION	190	4.11	19
WELDERS AND CUTTERS	10	0.22	14
GRINDING & POLISHING WORKERS, HAND	80	1.73	15
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	150	3.25	16
ALL OTHER HAND WORKERS	40	0.87	20
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.22	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.22	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	60	1.30	16
MECHANIC AND REPAIRER HELPERS	50	1.08	20
MACHINE FEEDERS AND OFFBEARERS	40	0.87	21
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	120	2.60	13
HAND PACKERS AND PACKAGERS	10	0.22	41
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	80	1.73	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

SIC 35

This major group includes establishments engaged in manufacturing machinery and equipment, other than electrical equipment and transportation equipment. Machines powered by built-in or detachable motors ordinarily are included in this major group, with the exception of electrical household appliances.

This industry has the second highest employment level (16.1 percent of total) in the manufacturing sector. Only electrical machinery, with 18.1 percent of the total employment in manufacturing, is higher.

PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

	35	351	354	355	356	357	359
TOTAL	100%	100%	100%	100%	100%	100%	100%
Managerial & Admin. Occs.	10.55	11.48	7.52	8.30	8.94	12.47	8.34
Prof., & Tech. Occ.	23.94	15.00	10.76	16.37	15.50	34.78	5.61
Sales Occs.	5.62	1.48	3.32	7.46	5.59	6.63	3.15
Clerical Occs.	17.88	12.04	13.56	17.22	16.90	21.01	11.22
Service Occ.	1.80	2.04	1.62	1.08	1.54	2.20	1.37
Prod., & Maint., Occs.	40.06	57.96	63.23	49.58	51.54	22.90	70.45

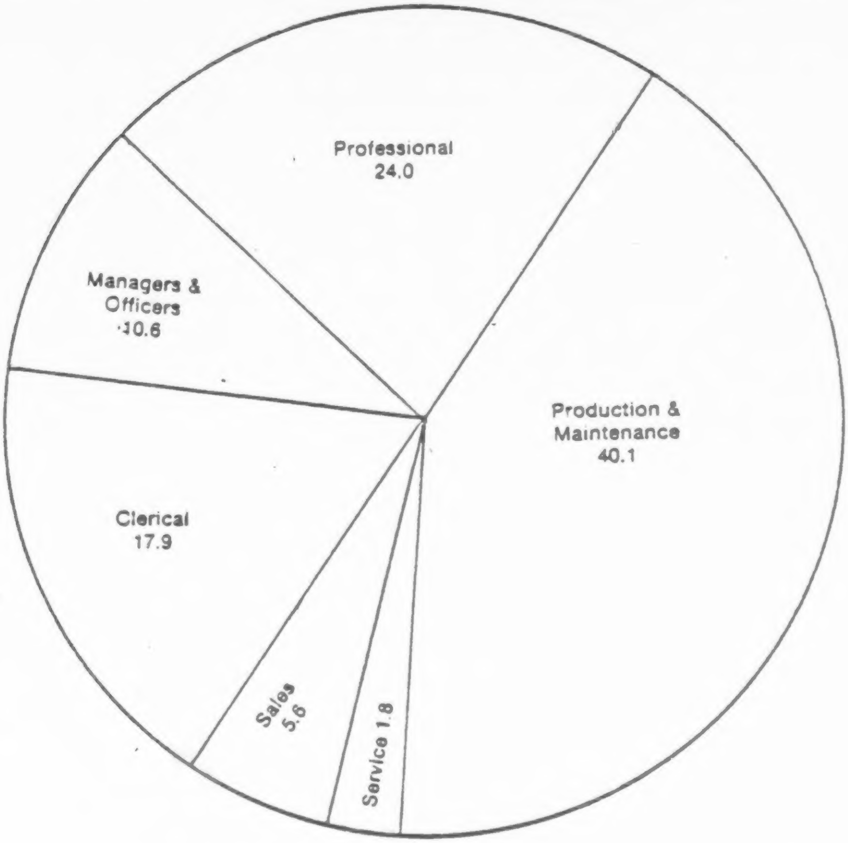
The high proportion of production and maintenance workers in SIC 354 (metal working machinery and equipment) is mostly due to tool and die makers and machinists in this category, who comprise 68 percent and 31 percent respectively of the total industry employment in those occupations.

Office computing and accounting machines (SIC 357) once again has the highest percentage of professional and technical occupations in the occupational distribution (34.78 percent). The various engineers and engineering technicians needed in the computer industries account for this high percentage. The professional, paraprofessional and technical category in this industry is also the only major category in a three digit SIC that is larger than the production and maintenance occupations.

This industry,which manufactures electronic computing equipment, typewriters, calculating and accounting machines, scales and balances (except laboratory) and miscellandous office machinery, grew 12 percent since the last survey (1980) and contains 51 percent of the two digit industry employment.

MACHINERY, EXCEPT ELECTRICAL (SIC 35)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Electrical and Electronic Engineers	4,340
2.	Machinists	4,100
3.	Secretaries	3,810
4.	All Other Managers and Administrators	3,800
5.	Sales Representatives, Scientific Products except Retail	3,290
6.	General Managers and Top Executives	3,020
7.	Electrical and Electronic Engineering Technicians and Technologists	2, 970
8.	Supervisors-Production and Operating Workers	2,610
9.	Precision Inspectors, Testers and Graders	2,430
10.	Assemblers and Fabricators except Machine, Electrical, Electronic, and Precision Workers	2,430

These 10 occupational categories make up 32.4% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
MACHINERY EXCEPT ELECTRICAL
SIC = 35
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	101,200	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	10,680	10.55	N/A
FINANCIAL MANAGERS	670	0.66	14
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	430	0.42	12
PURCHASING MANAGERS	180	0.18	15
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	1,010	1.00	23
ADMINISTRATIVE SERVICES MANAGERS	360	0.36	23
INDUSTRIAL PRODUCTION MANAGERS	1,210	1.20	18
GENERAL MANAGERS AND TOP EXECUTIVES	3,020	2.98	10
ALL OTHER MANAGERS AND ADMINISTRATORS	3,800	3.75	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	24,230	23.94	N/A
ACCOUNTANTS AND AUDITORS	920	0.91	13
BUDGET ANALYSTS	180	0.18	25
ALL OTHER FINANCIAL SPECIALISTS	880	0.87	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	490	0.48	11
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	580	0.57	20
COST ESTIMATORS	160	0.16	20
ALL OTHER MANAGEMENT SUPPORT WORKERS	1,500	1.48	N/A
METALLURGISTS & METAL.CERAMIC, MATERIALS ENG	50	0.05	31
CIVIL ENGINEERS, INCLUDING TRAFFIC	20	0.02	13
ELECTRICAL AND ELECTRONIC ENGINEERS	4,340	4.29	17
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	1,390	1.37	18
SAFETY ENGINEERS, EXCEPT MINING	40	0.04	31
MECHANICAL ENGINEERS	1,480	1.46	11
ALL OTHER ENGINEERS	1,110	1.10	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	2,970	2.93	14
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	340	0.34	34
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	310	0.31	29
DRAFTERS	1,430	1.41	14
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	1,440	1.42	22
ALL OTHER PHYSICAL SCIENTISTS	80	0.08	N/A
LIFE SCIENTISTS	50	0.05	21
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	1,090	1.08	17
COMPUTER PROGRAMMERS	1,390	1.37	40
COMPUTER PROGRAMMER AIDES	160	0.16	30
PROGRAMMERS-NUMERICAL, TOOL & PROCESS CONTROL	140	0.14	22
OPER & SYS RESEARCHERS & ANALYST,EXC COMMUNI	110	0.11	29
ALL OTHER MATHEMATICAL SCIENTISTS	80	0.08	N/A
LAWYERS	80	0.08	31

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MACHINERY EXCEPT ELECTRICAL
SIC = 35
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	120	0.12	20
WRITERS AND EDITORS	70	0.07	27
TECHNICAL WRITERS	400	0.40	24
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	50	0.05	26
DESIGNERS, EXCEPT INTERIOR DESIGNERS	330	0.33	21
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	450	0.44	37
SALES AND RELATED OCCUPATIONS	5,690	5.62	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	400	0.40	23
SALES ENGINEERS	530	0.52	37
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	3,290	3.25	22
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	930	0.92	37
ALL OTHER SALES AND RELATED WORKERS	540	0.53	32
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	18,090	17.88	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	1,070	1.06	38
SECRETARIES	3,810	3.76	6
STENOGRAPHERS	80	0.08	28
RECEPTIONIST AND INFORMATION CLERKS	190	0.19	21
TYPISTS	320	0.32	22
TYPISTS, WORD PROCESSING EQUIPMENT	120	0.12	34
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	290	0.29	15
FILE CLERKS	120	0.12	25
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	410	0.41	23
PROCUREMENT CLERKS	180	0.18	22
STATISTICAL CLERKS	150	0.15	38
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	1,620	1.60	10
PAYROLL AND TIMEKEEPING CLERKS	220	0.22	18
BILLING, COST AND RATE CLERKS	360	0.36	21
GENERAL OFFICE CLERKS	1,380	1.36	12
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	720	0.71	15
PERIPHERAL EDP EQUIPMENT OPERATORS	50	0.05	44
DATA ENTRY KEYERS, EXCEPT COMPOSING	550	0.54	16
ALL OTHER OFFICE MACHINE OPERATORS	140	0.14	N/A
SWITCHBOARD OPERATORS	230	0.23	15
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	1,690	1.67	23
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS	30	0.03	41
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	1,720	1.70	13
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	1,630	1.61	18
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	190	0.19	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	820	0.81	N/A

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MACHINERY EXCEPT ELECTRICAL
SIC = 35
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SERVICE OCCUPATIONS	1,820	1.80	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	180	0.18	27
GUARDS AND WATCH GUARDS	360	0.36	17
FOOD & BEVERAGE PREPARATION & SERVICE OCCUP.	40	0.04	49
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	1,180	1.17	15
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	20	0.02	N/A
ALL OTHER SERVICE WORKERS	40	0.04	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	30	0.03	N/A
GARDENERS AND GROUNDSKEEPERS, EXCEPT FARM	30	0.03	38
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	40,540	40.06	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	170	0.17	36
SUPERVISORS-CCNSTRUCTION & EXTRACTIVE WORKERS	10	0.01	27
SUPERVISORS-PRODUCTION & OPERATING WORKERS	2,610	2.58	10
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	70	0.07	28
PRECISION INSPECTORS, TESTERS, AND GRADERS	2,430	2.40	18
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	1,620	1.60	29
MACHINERY MAINTENANCE MECHANICS	550	0.54	23
MILLWRIGHTS	70	0.07	45
MACHINERY MAINTENANCE WORKERS	100	0.10	32
MAINTENANCE REPAIRERS, GENERAL UTILITY	610	0.60	15
AUTOMOTIVE MECHANICS	30	0.03	24
HEATING, A/C & REFRIG MECHANICS & INSTALLERS	70	0.07	22
RIGGERS	50	0.05	7
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	1,470	1.45	N/A
CARPENTERS	170	0.17	20
ELECTRICIANS	390	0.39	12
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	110	0.11	22
ALL OTHER CONSTRUCTION TRADES WORKERS	220	0.22	N/A
TOOL AND DIE MAKERS	1,350	1.33	22
MACHINISTS	4,100	4.05	11
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	180	0.18	27
SHEET METAL WORKERS	790	0.78	22
ALL OTHER PRECISION METAL WORKERS	610	0.60	N/A
ALL OTHER PRECISION WOODWORKERS	40	0.04	N/A
ALL OTHER PRECISION WORKERS	120	0.12	N/A
SAW MACH TOOL SETTERS,SET-UP CPER,METAL&PLAST	110	0.11	33
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	1,610	1.59	14
DRILL & BORE MACH TOOL SETTERS & SET-UP OPER.	880	0.87	21
MILL & PLANING MACH SETTERS & SET-UP OPERATOR	930	0.92	17
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	1,170	1.16	19

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MACHINERY EXCEPT ELECTRICAL
SIC = 35
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
MACHINE TOOL CUTTING OPERATORS & TENDERS	1,020	1.01	31
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	400	0.40	36
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	80	0.08	32
FORG MACH SETTER & SET-UP OPER, METAL PLASTIC	10	0.01	14
MACH FORMING OPER & TENDERS, METAL & PLASTIC	660	0.65	25
NUM CONT MACH TOOL OPER, TEND, METAL PLASTIC	1,310	1.29	15
MACH TOOL SETTER & SET-UP OPER, METAL PLASTIC	220	0.22	36
COMB MACH TOOL OPER, TENDERS, METAL & PLASTIC	470	0.46	36
WELDING MACHINE SETTERS AND SET-UP OPERATORS	540	0.53	19
WELDING MACHINE OPERATORS AND TENDERS	100	0.10	32
SOLDERING,BRAZING MACH OPERATORS AND TENDERS	150	0.15	47
METAL MOLDING & CASTING MACH SETTER,SET-UP OP	30	0.03	15
ELECTROLYTIC PLATING, COATING MACHINE SETTERS	70	0.07	45
HEAT TREATING,ANNEAL,TEMPERING OPER. & TEND.	80	0.08	48
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	290	0.29	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	330	0.33	N/A
WOODWORKING MACHINE OPER, TENDERS EXC SAWING	10	0.01	N/A
BOILER OPERATORS AND TENDERS, LOW PRESSURE	10	0.01	11
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	140	0.14	31
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	270	0.27	41
CLEAN,WASH,PICKLING EQUIP OPERATORS & TENDERS	40	0.04	34
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	150	0.15	11
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	360	0.36	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	510	0.50	N/A
MACH BUILDERS & OTHER PRECISION MACH ASSEMBL.	1,020	1.01	26
ELEC.& ELECTRONIC EQUIP ASSEMBLER - PRECISION	1,420	1.40	51
ALL OTHER PRECISION ASSEMBLERS, METAL	820	0.81	N/A
MACHINE ASSEMBLERS	520	0.51	35
ELECTRICAL & ELECTRONIC ASSEMBLERS	1,810	1.79	32
COIL WINDERS, TAPERS AND FINISHERS	110	0.11	47
SOLDERERS AND BRAZERS	190	0.19	49
GRINDING & POLISHING WORKERS, HAND	110	0.11	42
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	2,430	2.40	18
ALL OTHER HAND WORKERS	310	0.31	N/A
STATIONARY ENGINEERS	50	0.05	13
ALL OTHER PLANT AND SYSTEM OPERATORS	50	0.05	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	60	0.06	20
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	120	0.12	23
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.01	N/A
HOIST AND WINCH OPERATORS	40	0.04	15

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MACHINERY EXCEPT ELECTRICAL
SIC = 35
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	240	0.24	24
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	30	0.03	N/A
CONSTRUCTION TRADES, EXTRACTIVE WORKER HELPER	50	0.05	50
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	780	0.77	27
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	560	0.55	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# ENGINES AND TURBINES
SIC = 351
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	5,400	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	620	11.48	N/A
FINANCIAL MANAGERS	50	0.93	3
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	40	0.74	8
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	60	1.11	7
INDUSTRIAL PRODUCTION MANAGERS	270	5.00	7
ALL OTHER MANAGERS AND ADMINISTRATORS	210	3.89	7
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	810	15.00	N/A
ACCOUNTANTS AND AUDITORS	70	1.30	3
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.19	24
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	40	0.74	6
METALLURGISTS & METAL.CERAMIC, MATERIALS ENG	10	0.19	8
CIVIL ENGINEERS, INCLUDING TRAFFIC	10	0.19	7
ELECTRICAL AND ELECTRONIC ENGINEERS	90	1.67	8
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	40	0.74	5
MECHANICAL ENGINEERS	200	3.70	3
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	10	0.19	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	0.37	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	20	0.37	25
PROGRAMMERS-NUMERICAL, TOOL & PROCESS CONTROL	20	0.37	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.19	N/A
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	10	0.19	8
DESIGNERS, EXCEPT INTERIOR DESIGNERS	190	3.52	8
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	70	1.30	N/A
SALES AND RELATED OCCUPATIONS	80	1.48	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	50	0.93	4
SALES ENGINEERS	20	0.37	12
ALL OTHER SALES AND RELATED WORKERS	20	0.37	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	650	12.04	N/A
SECRETARIES	90	1.67	15
STENOGRAPHERS	40	0.74	8
TYPISTS	20	0.37	8
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.19	9
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	40	0.74	19
PAYROLL AND TIMEKEEPING CLERKS	10	0.19	N/A
GENERAL OFFICE CLERKS	40	0.74	34
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	20	0.37	12
PERIPHERAL EDP EQUIPMENT OPERATORS	10	0.19	N/A
DATA ENTRY KEYERS, EXCEPT COMPOSING	30	0.56	4
ALL OTHER OFFICE MACHINE OPERATORS	30	0.56	3

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ENGINES AND TURBINES
SIC = 351
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SWITCHBOARD OPERATORS	10	0.19	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	90	1.67	10
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	100	1.85	10
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	50	0.93	21
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	80	1.48	N/A
SERVICE OCCUPATIONS	110	2.04	N/A
GUARDS AND WATCH GUARDS	40	0.74	8
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	50	0.93	4
ALL OTHER SERVICE WORKERS	10	0.19	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,130	57.96	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	120	2.22	15
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	180	3.33	4
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	20	0.37	N/A
MACHINERY MAINTENANCE MECHANICS	100	1.85	8
MACHINERY MAINTENANCE WORKERS	10	0.19	8
AUTOMOTIVE MECHANICS	10	0.19	N/A
HEATING, A/C & REFRIG MECHANICS & INSTALLERS	10	0.19	N/A
RIGGERS	40	0.74	8
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	130	2.41	8
CARPENTERS	50	0.93	8
ELECTRICIANS	110	2.04	8
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	30	0.56	N/A
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	70	1.30	8
TOOL AND DIE MAKERS	20	0.37	N/A
SHEET METAL WORKERS	10	0.19	N/A
ALL OTHER PRECISION WORKERS	130	2.41	N/A
SAW MACH TOOL SETTERS,SET-UP OPER,METAL&PLAST	10	0.19	N/A
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	250	4.63	7
DRILL & BORE MACH TOOL SETTERS & SET-UP OPER.	70	1.30	3
MILL & PLANING MACH SETTERS & SET-UP OPERATOR	180	3.33	4
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	130	2.41	8
MACHINE TOOL CUTTING OPERATORS & TENDERS	70	1.30	5
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	20	0.37	23
NUM CONT MACH TOOL OPER, TEND, METAL PLASTIC	200	3.70	4
WELDING MACHINE SETTERS AND SET-UP OPERATORS	10	0.19	19
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	80	1.48	8
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	10	0.19	N/A
WOODWORKING MACHINE OPER, TENDERS EXC SAWING	10	0.19	N/A
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	10	0.19	8
CLEAN,WASH,PICKLING EQUIP OPERATORS & TENDERS	20	0.37	20

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ENGINES AND TURBINES
SIC = 351
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	110	2.04	8
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	220	4.07	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	100	1.85	6
MACH BUILDERS & OTHER PRECISION MACH ASSEMBL.	180	3.33	2
ELECTROMECHANICAL EQUIP ASSEMB.-PRECISION	30	0.56	9
ELEC.& ELECTRONIC EQUIP ASSEMBLER - PRECISION	40	0.74	8
ALL OTHER PRECISION ASSEMBLERS, METAL	30	0.56	N/A
ALL OTHER PRECISION ASSEMBLERS, EXCEPT METAL	10	0.19	N/A
COIL WINDERS, TAPERS AND FINISHERS	20	0.37	8
WELDERS AND CUTTERS	70	1.30	6
ALL OTHER HAND WORKERS	10	0.19	N/A
STATIONARY ENGINEERS	30	0.56	5
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	20	0.37	8
HOIST AND WINCH OPERATORS	40	0.74	8
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	30	0.56	3
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	10	0.19	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	90	1.67	8

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
METAL WORKING MACHINERY & EQUIPMENT
SIC = 354
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	13,570	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,020	7.52	N/A
FINANCIAL MANAGERS	30	0.22	25
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	30	0.22	18
PURCHASING MANAGERS	20	0.15	34
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	30	0.22	35
INDUSTRIAL PRODUCTION MANAGERS	60	0.44	15
GENERAL MANAGERS AND TOP EXECUTIVES	760	5.60	22
ALL OTHER MANAGERS AND ADMINISTRATORS	100	0.74	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	1,460	10.76	N/A
ACCOUNTANTS AND AUDITORS	80	0.59	22
ALL OTHER FINANCIAL SPECIALISTS	10	0.07	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	50	0.37	25
COST ESTIMATORS	20	0.15	30
ALL OTHER MANAGEMENT SUPPORT WORKERS	40	0.29	N/A
ELECTRICAL AND ELECTRONIC ENGINEERS	70	0.52	24
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	140	1.03	23
SAFETY ENGINEERS, EXCEPT MINING	10	0.07	35
MECHANICAL ENGINEERS	320	2.36	24
ALL OTHER ENGINEERS	70	0.52	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	40	0.29	33
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	40	0.29	15
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	40	0.29	29
DRAFTERS	390	2.87	30
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	0.15	N/A
COMPUTER PROGRAMMERS	50	0.37	33
ALL OTHER MATHEMATICAL SCIENTISTS	60	0.44	N/A
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	10	0.07	28
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.07	20
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.07	N/A
SALES AND RELATED OCCUPATIONS	450	3.32	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	20	0.15	19
SALES ENGINEERS	60	0.44	30
ALL OTHER SALES AND RELATED WORKERS	370	2.73	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,840	13.56	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	40	0.29	29
SECRETARIES	350	2.58	19
STENOGRAPHERS	10	0.07	29
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	40	0.29	32
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	370	2.73	24

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
METAL WORKING MACHINERY & EQUIPMENT
SIC = 354
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PAYROLL AND TIMEKEEPING CLERKS	40	0.29	35
BILLING, COST AND RATE CLERKS	20	0.15	35
GENERAL OFFICE CLERKS	230	1.69	25
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	20	0.15	31
DATA ENTRY KEYERS, EXCEPT COMPOSING	50	0.37	18
ALL OTHER OFFICE MACHINE OPERATORS	30	0.22	N/A
SWITCHBOARD OPERATORS	10	0.07	35
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	80	0.59	14
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	180	1.33	26
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	290	2.14	32
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	30	0.22	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	60	0.44	N/A
SERVICE OCCUPATIONS	220	1.62	N/A
GUARDS AND WATCH GUARDS	30	0.22	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	170	1.25	25
ALL OTHER SERVICE WORKERS	20	0.15	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	8,580	63.23	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	580	4.27	19
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	10	0.07	31
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.07	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	300	2.21	23
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	80	0.59	N/A
MACHINERY MAINTENANCE MECHANICS	70	0.52	28
MAINTENANCE REPAIRERS, GENERAL UTILITY	170	1.25	25
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	20	0.15	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	10	0.07	N/A
ELECTRICIANS	70	0.52	13
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	10	0.07	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	30	0.22	N/A
TOOL AND DIE MAKERS	920	6.78	32
MACHINISTS	1,260	9.29	23
ALL OTHER PRECISION METAL WORKERS	310	2.28	N/A
PATTERN AND MODEL MAKERS, WOOD	10	0.07	N/A
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	340	2.51	19
DRILL & BORE MACH TOOL SETTERS & SET-UP OPER.	340	2.51	31
MILL & PLANING MACH SETTERS & SET-UP OPERATOR	280	2.06	29
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	610	4.50	30
MACH FORMING OPER & TENDERS, METAL & PLASTIC	360	2.65	N/A
NUM CONT MACH TOOL OPER, TEND, METAL PLASTIC	370	2.73	N/A
WELDING MACHINE SETTERS AND SET-UP OPERATORS	100	0.74	34

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
METAL WORKING MACHINERY & EQUIPMENT
SIC = 354
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
METAL MOLDING & CASTING MACH SETTER,SET-UP OP	20	0.15	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	310	2.28	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	580	4.27	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	20	0.15	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	70	0.52	N/A
ALL OTHER PRECISION ASSEMBLERS, METAL	360	2.65	N/A
ALL OTHER PRECISION ASSEMBLERS, EXCEPT METAL	150	1.11	N/A
ALL OTHER HAND WORKERS	470	3.46	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.07	34
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.07	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	50	0.37	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	270	1.99	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	20	0.15	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
SPECIAL INDUSTRY MACHINERY
SIC = 355
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	13,010	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,080	8.30	N/A
FINANCIAL MANAGERS	60	0.46	19
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	40	0.31	45
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	180	1.38	42
GENERAL MANAGERS AND TOP EXECUTIVES	390	3.00	42
ALL OTHER MANAGERS AND ADMINISTRATORS	410	3.15	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	2,130	16.37	N/A
ACCOUNTANTS AND AUDITORS	100	0.77	35
BUDGET ANALYSTS	40	0.31	26
ALL OTHER FINANCIAL SPECIALISTS	40	0.31	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	160	1.23	42
ELECTRICAL AND ELECTRONIC ENGINEERS	180	1.38	15
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	110	0.85	37
MECHANICAL ENGINEERS	260	2.00	43
ALL OTHER ENGINEERS	120	0.92	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	330	2.54	23
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	390	3.00	N/A
ALL OTHER PHYSICAL SCIENTISTS	20	0.15	N/A
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	70	0.54	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	80	0.61	15
COMPUTER PROGRAMMERS	70	0.54	33
ALL OTHER MATHEMATICAL SCIENTISTS	60	0.46	N/A
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	10	0.08	N/A
ALL OTHER HEALTH DIAGNOSING & TREATING PRACT.	10	0.08	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	110	0.85	N/A
SALES AND RELATED OCCUPATIONS	970	7.46	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	40	0.31	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	290	2.23	40
ALL OTHER SALES AND RELATED WORKERS	640	4.92	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	2,240	17.22	N/A
SECRETARIES	310	2.38	22
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	160	1.23	46
GENERAL OFFICE CLERKS	230	1.77	28
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	40	0.31	43
ALL OTHER OFFICE MACHINE OPERATORS	80	0.61	N/A
SWITCHBOARD OPERATORS	30	0.23	45
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	310	2.38	33
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	250	1.92	24
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	210	1.61	36

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
SPECIAL INDUSTRY MACHINERY
SIC = 355
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	40	0.31	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	580	4.46	N/A
SERVICE OCCUPATIONS	140	1.08	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	10	0.08	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	30	0.23	N/A
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	100	0.77	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	6,450	49.58	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	360	2.77	36
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	130	1.00	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	220	1.69	32
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	250	1.92	N/A
ALL OTHER MACHINERY MAINTENANCE MECHANICS	90	0.69	N/A
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	150	1.15	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	540	4.15	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	100	0.77	N/A
ALL OTHER PRECISION METAL WORKERS	1,140	8.76	N/A
ALL OTHER PRECISION WOODWORKERS	10	0.08	N/A
ALL OTHER PRECISION WORKERS	20	0.15	N/A
METAL MOLDING & CASTING MACH SETTER,SET-UP OP	10	0.08	N/A
ELECTROLYTIC PLATING, COATING MACHINE SETTERS	10	0.08	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	1,060	8.15	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	640	4.92	N/A
BOILER OPERATORS AND TENDERS, LOW PRESSURE	10	0.08	N/A
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	80	0.61	48
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	30	0.23	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	300	2.31	N/A
ELECTROMECHANICAL EQUIP ASSEMB.-PRECISION	60	0.46	N/A
ELEC.& ELECTRONIC EQUIP ASSEMBLER - PRECISION	160	1.23	22
ALL OTHER PRECISION ASSEMBLERS, METAL	400	3.07	N/A
ALL OTHER PRECISION ASSEMBLERS, EXCEPT METAL	50	0.38	N/A
ALL OTHER HAND WORKERS	170	1.31	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	10	0.08	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	40	0.31	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	80	0.61	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	280	2.15	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	50	0.38	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
GENERAL INDUSTRY MACHINERY
SIC = 356
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	7,160	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	640	8.94	N/A
FINANCIAL MANAGERS	50	0.70	8
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	30	0.42	15
PURCHASING MANAGERS	20	0.28	23
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	90	1.26	10
ADMINISTRATIVE SERVICES MANAGERS	20	0.28	10
INDUSTRIAL PRODUCTION MANAGERS	60	0.84	11
GENERAL MANAGERS AND TOP EXECUTIVES	260	3.63	17
ALL OTHER MANAGERS AND ADMINISTRATORS	110	1.54	8
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	1,110	15.50	N/A
ACCOUNTANTS AND AUDITORS	70	0.98	15
BUDGET ANALYSTS	10	0.14	9
ALL OTHER FINANCIAL SPECIALISTS	10	0.14	12
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	50	0.70	15
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	20	0.28	8
COST ESTIMATORS	20	0.28	36
ALL OTHER MANAGEMENT SUPPORT WORKERS	50	0.70	19
CHEMICAL ENGINEERS	20	0.28	19
ELECTRICAL AND ELECTRONIC ENGINEERS	70	0.98	19
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	110	1.54	11
MECHANICAL ENGINEERS	180	2.51	18
ALL OTHER ENGINEERS	30	0.42	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	60	0.84	23
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	20	0.28	36
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	50	0.70	10
DRAFTERS	140	1.96	17
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	0.28	22
CHEMISTS, EXCEPT BIOCHEMISTS	10	0.14	18
LIFE SCIENTISTS	50	0.70	19
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	20	0.28	6
COMPUTER PROGRAMMERS	40	0.56	20
PROGRAMMERS-NUMERICAL, TOOL & PROCESS CONTROL	10	0.14	24
OPER & SYS RESEARCHERS & ANALYST,EXC COMMUNI	10	0.14	11
TECHNICAL WRITERS	10	0.14	17
DESIGNERS, EXCEPT INTERIOR DESIGNERS	20	0.28	16
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	20	0.28	N/A
SALES AND RELATED OCCUPATIONS	400	5.59	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	60	0.84	15
SALES ENGINEERS	100	1.40	24

---

[1] - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
GENERAL INDUSTRY MACHINERY
SIC = 356
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	160	2.23	23
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	80	1.12	27
ALL OTHER SALES AND RELATED WORKERS	10	0.14	24
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,210	16.90	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	60	0.84	14
SECRETARIES	220	3.07	14
RECEPTIONIST AND INFORMATION CLERKS	10	0.14	35
TYPISTS	10	0.14	42
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.14	26
FILE CLERKS	20	0.28	16
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	70	0.98	20
PROCUREMENT CLERKS	20	0.28	33
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	140	1.96	15
PAYROLL AND TIMEKEEPING CLERKS	10	0.14	26
BILLING, COST AND RATE CLERKS	20	0.28	32
GENERAL OFFICE CLERKS	120	1.68	22
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	30	0.42	12
DATA ENTRY KEYERS, EXCEPT COMPOSING	40	0.56	8
ALL OTHER OFFICE MACHINE OPERATORS	10	0.14	N/A
SWITCHBOARD OPERATORS	20	0.28	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	130	1.82	11
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	140	1.96	15
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	120	1.68	13
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.14	32
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	0.28	N/A
SERVICE OCCUPATIONS	110	1.54	N/A
GUARDS AND WATCH GUARDS	20	0.28	9
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	80	1.12	15
ALL OTHER SERVICE WORKERS	10	0.14	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,690	51.54	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	20	0.28	16
SUPERVISORS-PRODUCTION & OPERATING WORKERS	270	3.77	10
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	10	0.14	35
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	10	0.14	20
PRECISION INSPECTORS, TESTERS, AND GRADERS	120	1.68	14
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	60	0.84	18
MACHINERY MAINTENANCE MECHANICS	40	0.56	6
MILLWRIGHTS	10	0.14	22
MACHINERY MAINTENANCE WORKERS	10	0.14	16
MAINTENANCE REPAIRERS, GENERAL UTILITY	50	0.70	38

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
GENERAL INDUSTRY MACHINERY
SIC = 356

REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
RIGGERS	10	0.14	20
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	20	0.28	25
CARPENTERS	10	0.14	12
ELECTRICIANS	30	0.42	12
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	20	0.28	24
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	30	0.42	18
TOOL AND DIE MAKERS	60	0.84	22
MACHINISTS	350	4.89	27
PRECISION LAYOUT WORKERS, METAL	10	0.14	22
SHEET METAL WORKERS	110	1.54	47
PATTERN AND MODEL MAKERS, WOOD	10	0.14	29
ALL OTHER PRECISION WORKERS	10	0.14	N/A
SAW MACH TOOL SETTERS,SET-UP OPER,METAL&PLAST	10	0.14	34
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	230	3.21	20
DRILL & BORE MACH TOOL SETTERS & SET-UP OPER.	80	1.12	24
MILL & PLANING MACH SETTERS & SET-UP OPERATOR	50	0.70	37
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	110	1.54	33
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	40	0.56	37
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	10	0.14	27
SHEAR,SLITTER MACHINE SETTER & SET-UP OPER.	10	0.14	32
MACH FORMING OPER & TENDERS, METAL & PLASTIC	30	0.42	18
NUM CONT MACH TOOL OPER, TEND, METAL PLASTIC	100	1.40	25
WELDING MACHINE SETTERS AND SET-UP OPERATORS	90	1.26	24
METAL MOLDING & CASTING MACH SETTER,SET-UP OP	10	0.14	25
METAL MOLDING & CASTING MACH OPERATOR,TENDER	20	0.28	19
HEAT TREATING,ANNEAL,TEMPERING OPER. & TEND.	10	0.14	14
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	80	1.12	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	190	2.65	N/A
SAWING MACHINE OPERATORS AND TENDERS	10	0.14	35
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	10	0.14	50
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	10	0.14	40
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	10	0.14	13
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	10	0.14	24
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	80	1.12	47
ALL OTHER MACHINE OPERATORS AND TENDERS	20	0.28	N/A
MACH BUILDERS & OTHER PRECISION MACH ASSEMBL.	90	1.26	27
ALL OTHER PRECISION ASSEMBLERS, METAL	20	0.28	25
ALL OTHER PRECISION ASSEMBLERS, EXCEPT METAL	60	0.84	N/A
MACHINE ASSEMBLERS	140	1.96	26
ELECTRICAL & ELECTRONIC ASSEMBLERS	130	1.82	39

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
GENERAL INDUSTRY MACHINERY
SIC = 356
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
WELDERS AND CUTTERS	50	0.70	13
SOLDERERS AND BRAZERS	10	0.14	38
GRINDING & POLISHING WORKERS, HAND	30	0.42	18
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	540	7.54	18
STATIONARY ENGINEERS	10	0.14	20
CRANE AND TOWER OPERATORS	10	0.14	18
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	30	0.42	49
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	10	0.14	N/A
MECHANIC AND REPAIRER HELPERS	10	0.14	26
CONSTRUCTION TRADES, EXTRACTIVE WORKER HELPER	10	0.14	25
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	40	0.56	27
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	40	0.56	32

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
OFFICE AND COMPUTING MACHINES
SIC = 357
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	51,870	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	6,470	12.47	N/A
FINANCIAL MANAGERS	450	0.87	21
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	300	0.58	16
PURCHASING MANAGERS	110	0.21	21
ADMINISTRATIVE SERVICES MANAGERS	290	0.56	27
INDUSTRIAL PRODUCTION MANAGERS	670	1.29	29
GENERAL MANAGERS AND TOP EXECUTIVES	840	1.62	22
ALL OTHER MANAGERS AND ADMINISTRATORS	3,820	7.36	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	18,040	34.78	N/A
ACCOUNTANTS AND AUDITORS	530	1.02	21
BUDGET ANALYSTS	130	0.25	35
ALL OTHER FINANCIAL SPECIALISTS	820	1.58	33
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	300	0.58	15
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	490	0.94	24
COST ESTIMATORS	70	0.13	24
ALL OTHER MANAGEMENT SUPPORT WORKERS	1,370	2.64	26
ELECTRICAL AND ELECTRONIC ENGINEERS	3,900	7.52	19
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	980	1.89	25
SAFETY ENGINEERS, EXCEPT MINING	30	0.06	33
MECHANICAL ENGINEERS	340	0.66	24
ALL OTHER ENGINEERS	920	1.77	32
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	2,520	4.86	17
DRAFTERS	530	1.02	17
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	1,680	3.24	22
ALL OTHER PHYSICAL SCIENTISTS	20	0.04	N/A
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	10	0.02	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	930	1.79	20
COMPUTER PROGRAMMER AIDES	130	0.25	34
OPER & SYS RESEARCHERS & ANALYST,EXC COMMUNI	90	0.17	29
ALL OTHER MATHEMATICAL SCIENTISTS	1,250	2.41	N/A
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	60	0.12	N/A
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	90	0.17	25
WRITERS AND EDITORS	60	0.12	31
TECHNICAL WRITERS	370	0.71	25
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	50	0.10	20
DESIGNERS, EXCEPT INTERIOR DESIGNERS	40	0.08	35
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	340	0.66	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE -
OCCUPATIONS OF EMPLOYEES
OFFICE AND COMPUTING MACHINES
SIC = 357
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SALES AND RELATED OCCUPATIONS	3,440	6.63	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	240	0.46	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	2,610	5.03	27
ALL OTHER SALES AND RELATED WORKERS	580	1.12	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	10,900	21.01	N/A
SECRETARIES	2,420	4.67	8
RECEPTIONIST AND INFORMATION CLERKS	160	0.31	25
TYPISTS	210	0.40	25
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	230	0.44	17
PROCUREMENT CLERKS	100	0.19	26
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	670	1.29	18
PAYROLL AND TIMEKEEPING CLERKS	130	0.25	24
BILLING, COST AND RATE CLERKS	250	0.48	28
GENERAL OFFICE CLERKS	590	1.14	22
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	610	1.18	18
DATA ENTRY KEYERS, EXCEPT COMPOSING	370	0.71	22
ALL OTHER OFFICE MACHINE OPERATORS	90	0.17	N/A
SWITCHBOARD OPERATORS	160	0.31	20
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	970	1.87	21
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	840	1.62	31
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	1,160	2.24	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	1,950	3.76	N/A
SERVICE OCCUPATIONS	1,140	2.20	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	150	0.29	31
GUARDS AND WATCH GUARDS	240	0.46	22
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	670	1.29	23
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.02	N/A
ALL OTHER SERVICE WORKERS	70	0.13	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	11,880	22.90	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	900	1.74	22
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	200	0.39	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	1,540	2.97	27
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	940	1.81	N/A
ALL OTHER MACHINERY MAINTENANCE MECHANICS	240	0.46	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	140	0.27	27
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	70	0.13	N/A
ALL OTHER ELEC & ELECTR EQUIP MECH,REP,INSTAL	330	0.64	N/A
HEATING, A/C & REFRIG MECHANICS & INSTALLERS	50	0.10	28
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	320	0.62	N/A
CARPENTERS	70	0.13	24

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
OFFICE AND COMPUTING MACHINES
SIC = 357
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ELECTRICIANS	150	0.29	20
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	50	0.10	25
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	20	0.04	26
ALL OTHER CONSTRUCTION TRADES WORKERS	40	0.08	N/A
MACHINISTS	270	0.52	31
ALL OTHER PRECISION METAL WORKERS	340	0.66	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	200	0.39	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	480	0.93	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	20	0.04	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	140	0.27	N/A
ALL OTHER PRECISION ASSEMBLERS, METAL	200	0.39	N/A
ALL OTHER PRECISION ASSEMBLERS, EXCEPT METAL	3,230	6.23	N/A
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	1,040	2.01	31
ALL OTHER HAND WORKERS	290	0.56	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	50	0.10	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	60	0.12	30
ALL OTHER MOTOR VEHICLE OPERATORS	20	0.04	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	40	0.08	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	290	0.56	35
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	150	0.29	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	10	0.02	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# MISC. MACHINERY, EXCEPT ELECTRICAL
SIC = 359
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	7,310	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	610	8.34	N/A
FINANCIAL MANAGERS	20	0.27	N/A
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.14	N/A
PURCHASING MANAGERS	10	0.14	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.14	N/A
ADMINISTRATIVE SERVICES MANAGERS	10	0.14	29
INDUSTRIAL PRODUCTION MANAGERS	20	0.27	13
GENERAL MANAGERS AND TOP EXECUTIVES	530	7.25	7
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.14	18
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	410	5.61	N/A
ACCOUNTANTS AND AUDITORS	70	0.96	17
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.14	11
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.14	35
COST ESTIMATORS	10	0.14	14
ELECTRICAL AND ELECTRONIC ENGINEERS	20	0.27	39
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	20	0.27	39
MECHANICAL ENGINEERS	110	1.50	23
ALL OTHER ENGINEERS	10	0.14	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	10	0.14	22
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	40	0.55	39
DRAFTERS	60	0.82	14
COMPUTER PROGRAMMERS	20	0.27	18
PROGRAMMERS-NUMERICAL, TOOL & PROCESS CONTROL	20	0.27	27
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	20	0.27	N/A
SALES AND RELATED OCCUPATIONS	230	3.15	N/A
SALES ENGINEERS	40	0.55	15
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	90	1.23	22
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	100	1.37	20
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	820	11.22	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.14	N/A
SECRETARIES	270	3.69	9
TYPISTS	10	0.14	22
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.14	20
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	160	2.19	14
PAYROLL AND TIMEKEEPING CLERKS	10	0.14	N/A
BILLING, COST AND RATE CLERKS	20	0.27	27
GENERAL OFFICE CLERKS	130	1.78	17
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.14	N/A
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.14	25

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISC. MACHINERY, EXCEPT ELECTRICAL
SIC = 359
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SWITCHBOARD OPERATORS	10	0.14	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	30	0.41	9
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	50	0.68	9
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	90	1.23	12
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	0.27	N/A
SERVICE OCCUPATIONS	100	1.37	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	90	1.23	14
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.14	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	5,150	70.45	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	260	3.56	9
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	10	0.14	29
PRECISION INSPECTORS, TESTERS, AND GRADERS	180	2.46	10
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	70	0.96	17
MACHINERY MAINTENANCE MECHANICS	10	0.14	13
MILLWRIGHTS	10	0.14	30
MAINTENANCE REPAIRERS, GENERAL UTILITY	70	0.96	23
ELECTRICIANS	10	0.14	11
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.14	N/A
TOOL AND DIE MAKERS	200	2.74	33
MACHINISTS	1,740	23.80	8
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	10	0.14	29
SHEET METAL WORKERS	80	1.09	41
ALL OTHER PRECISION WOODWORKERS	10	0.14	N/A
SAW MACH TOOL SETTERS,SET-UP OPER,METAL&PLAST	30	0.41	34
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	410	5.61	14
DRILL & BORE MACH TOOL SETTERS & SET-UP OPER.	150	2.05	20
MILL & PLANING MACH SETTERS & SET-UP OPERATOR	200	2.74	18
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	80	1.09	24
MACHINE TOOL CUTTING OPERATORS & TENDERS	280	3.83	25
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	20	0.27	26
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	20	0.27	43
MACH FORMING OPER & TENDERS, METAL & PLASTIC	60	0.82	22
NUM CONT MACH TOOL OPER, TEND, METAL PLASTIC	390	5.34	14
WELDING MACHINE SETTERS AND SET-UP OPERATORS	100	1.37	20
WELDING MACHINE OPERATORS AND TENDERS	30	0.41	39
SOLDER,BRAZING MACH SETTER, SET-UP OPERATORS	40	0.55	36
SOLDERING,BRAZING MACH OPERATORS AND TENDERS	20	0.27	46
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	90	1.23	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	120	1.64	N/A
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	20	0.27	30

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISC. MACHINERY, EXCEPT ELECTRICAL
SIC = 359
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	10	0.14	42
ALL OTHER MACHINE OPERATORS AND TENDERS	80	1.09	N/A
MACH BUILDERS & OTHER PRECISION MACH ASSEMBL.	70	0.96	40
ELECTROMECHANICAL EQUIP ASSEMB.-PRECISION	40	0.55	44
ALL OTHER PRECISION ASSEMBLERS, EXCEPT METAL	30	0.41	N/A
WELDERS AND CUTTERS	20	0.27	25
GRINDING & POLISHING WORKERS, HAND	30	0.41	18
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	60	0.82	33
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.14	9
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	20	0.27	16
MACHINE FEEDERS AND OFFBEARERS	50	0.68	43
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	10	0.14	25
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	10	0.14	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

SIC 36

This major group includes establishments engaged in manufacturing machinery, apparatus and supplies for the generation, storage, transmission, transformation and utilization of electrical energy.

The electrical equipment and supplies industry is the largest in the state's manufacturing sector with 114,800 annual average employment in 1983. The primary contributor to the major industry results was the "high technology" oriented electronic components and accessories (SIC 367) industry.

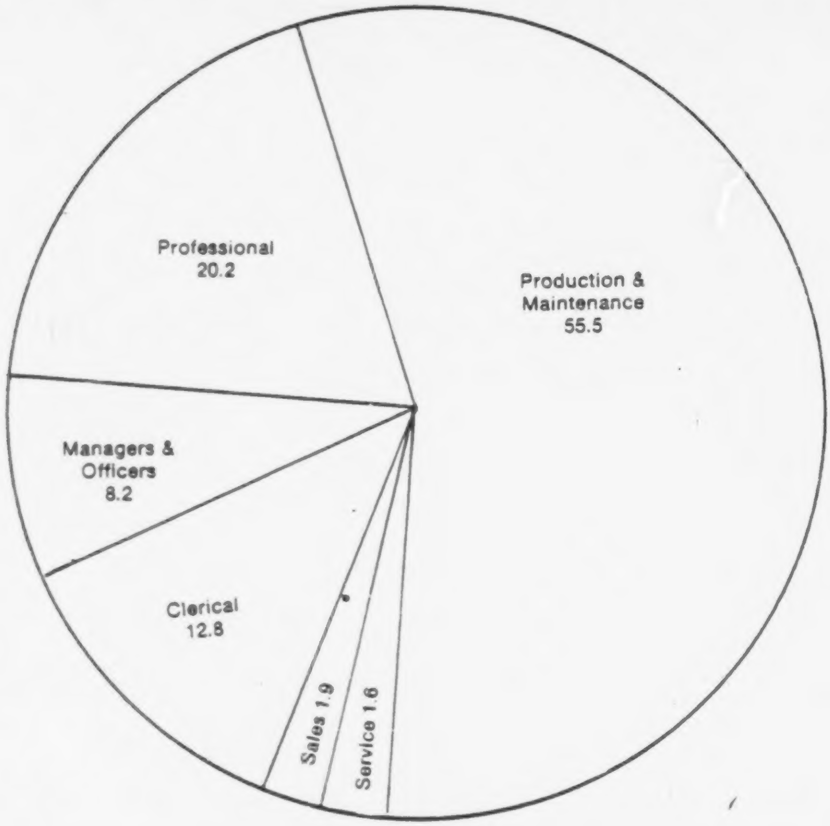
PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

	36	362	364	366	367
TOTAL	100%	100%	100%	100%	100%
Managerial & Administrative Occs.	8.16	3.89	7.29	6.56	10.08
Profess., Paraprofess., Tech. Occs.	20.16	9.12	6.40	28.69	20.36
Sales and Related Occs.	1.94	2.01	3.27	0.63	2.07
Clerical and Admin Support Occs.	12.75	8.04	11.16	15.71	11.67
Service Occs.	1.56	1.34	1.19	2.52	1.20
Prod., Constr., & Maint, Occs.	55.45	75.60	70.68	45.92	54.61

A feature of the occupational profile of the electrical equipment and supplies industry is its comparatively low level of production and maintenance workers (55.5 percent) compared to other manufacturing industries. This lower production and maintenance share is offset by a higher share (20.4 percent) of workers in the professional, paraprofessional, and technical occupations. Engineers (8,700) and engineering technicians and technologists (4,820) are the predominant occupations that make up 58.3 percent of the employment in the professional and technical group. Three occupations account for 60.6 percent of production employment: all other mechanics, installers, and repairers (15,230), all other hand workers (14,140) and assemblers and fabricators (9,270).

ELECTRICAL EQUIPMENT AND SUPPLIES (SIC 36)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	All Other Mechanics, Installers and Repairers	15,230
2.	All Other Hand Workers	14,140
3.	All Other Managers and Administrators	9,390
4.	Assemblers and Fabricators except Machine, Electrical, Electronic, and Precision Workers	9,270
5.	All Other Engineers	8,700
6.	All Other Precision Assemblers, Metal	6,280
7.	All Other Clerical and Administrative Support Workers	5,880
8.	All Other Engineering and Related Technicians and Technologists	4,820
9.	All Other Metal and Plastic Machine Operators and Tenders	3,520
10.	All Other Professionals, Paraprofessionals, and Technical Workers	3,030

These 10 occupational categories make 69.8 percent of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
ELECTRICAL EQUIPMENT AND SUPPLIES
SIC = 36
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	115,020	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	9,390	8.16	N/A
ALL OTHER MANAGERS AND ADMINISTRATORS	9,390	8.16	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	23,190	20.16	N/A
ACCOUNTANTS AND AUDITORS	1,110	0.97	25
ALL OTHER FINANCIAL SPECIALISTS	450	0.39	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	1,330	1.16	27
ALL OTHER MANAGEMENT SUPPORT WORKERS	1,460	1.27	N/A
ALL OTHER ENGINEERS	8,700	7.56	N/A
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	430	0.37	31
DRAFTERS	1,730	1.50	19
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	4,820	4.19	N/A
ALL OTHER PHYSICAL SCIENTISTS	30	0.03	N/A
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	100	0.09	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	3,030	2.63	N/A
SALES AND RELATED OCCUPATIONS	2,230	1.94	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	**	0.00	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	640	0.56	35
ALL OTHER SALES AND RELATED WORKERS	1,590	1.38	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	14,670	12.75	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	820	0.71	30
STENOGRAPHERS	130	0.11	26
TYPISTS	470	0.41	34
PROCUREMENT CLERKS	220	0.19	30
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	1,740	1.51	26
PAYROLL AND TIMEKEEPING CLERKS	270	0.23	34
DATA ENTRY KEYERS, EXCEPT COMPOSING	320	0.28	36
ALL OTHER OFFICE MACHINE OPERATORS	520	0.45	N/A
SWITCHBOARD OPERATORS	170	0.15	33
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	1,230	1.07	27
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	1,160	1.01	32
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	1,740	1.51	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	5,880	5.11	N/A
SERVICE OCCUPATIONS	1,790	1.56	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	330	0.29	23
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	960	0.83	21
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	40	0.03	N/A
ALL OTHER SERVICE WORKERS	460	0.40	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	63,780	55.45	N/A
MILLWRIGHTS	110	0.10	15

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# ELECTRICAL EQUIPMENT AND SUPPLIES
SIC = 36
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	15,230	13.24	N/A
ELECTRICIANS	310	0.27	30
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	110	0.10	31
ALL OTHER CONSTRUCTION TRADES WORKERS	200	0.17	N/A
TOOL AND DIE MAKERS	940	0.82	33
SHEET METAL WORKERS	1,010	0.88	26
ALL OTHER PRECISION METAL WORKERS	2,300	2.00	N/A
ALL OTHER PRECISION WORKERS	460	0.40	N/A
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	240	0.21	35
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	100	0.09	30
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	1,740	1.51	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	3,520	3.06	N/A
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	230	0.20	N/A
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	50	0.04	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	1,230	1.07	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	2,620	2.28	N/A
ALL OTHER PRECISION ASSEMBLERS, METAL	6,280	5.46	N/A
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	9,270	8.06	35
ALL OTHER HAND WORKERS	14,140	12.29	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	90	0.08	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	470	0.41	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	690	0.60	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	2,440	2.12	N/A

---

[1] - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# ELECTRICAL INDUSTRIAL APPARATUS
SIC = 362
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	7,460	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	290	3.89	N/A
FINANCIAL MANAGERS	20	0.27	45
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.13	20
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	20	0.27	43
INDUSTRIAL PRODUCTION MANAGERS	50	0.67	19
GENERAL MANAGERS AND TOP EXECUTIVES	150	2.01	23
ALL OTHER MANAGERS AND ADMINISTRATORS	40	0.54	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	680	9.12	N/A
ACCOUNTANTS AND AUDITORS	20	0.27	41
BUDGET ANALYSTS	20	0.27	24
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	40	0.54	18
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.13	19
ALL OTHER MANAGEMENT SUPPORT WORKERS	30	0.40	N/A
CHEMICAL ENGINEERS	10	0.13	35
ELECTRICAL AND ELECTRONIC ENGINEERS	130	1.74	29
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	30	0.40	13
MECHANICAL ENGINEERS	80	1.07	21
ALL OTHER ENGINEERS	10	0.13	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	110	1.47	21
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	30	0.40	35
DRAFTERS	70	0.94	29
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	0.27	N/A
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	10	0.13	17
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	40	0.54	15
COMPUTER PROGRAMMERS	20	0.27	25
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	**	0.00	N/A
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	10	0.13	N/A
SALES AND RELATED OCCUPATIONS	150	2.01	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	10	0.13	32
SALES ENGINEERS	100	1.34	48
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	20	0.27	48
ALL OTHER SALES AND RELATED WORKERS	20	0.27	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	600	8.04	N/A
SECRETARIES	140	1.88	13
TYPISTS	20	0.27	25
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	60	0.80	35
PROCUREMENT CLERKS	10	0.13	24
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	70	0.94	22
PAYROLL AND TIMEKEEPING CLERKS	10	0.13	28

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ELECTRICAL INDUSTRIAL APPARATUS
SIC = 362
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
BILLING, COST AND RATE CLERKS	20	0.27	13
GENERAL OFFICE CLERKS	30	0.40	47
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	20	0.27	18
PERIPHERAL EDP EQUIPMENT OPERATORS	10	0.13	N/A
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.27	39
SWITCHBOARD OPERATORS	10	0.13	28
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	80	1.07	6
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	30	0.40	34
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	60	0.80	19
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	0.27	N/A
SERVICE OCCUPATIONS	100	1.34	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.13	17
GUARDS AND WATCH GUARDS	40	0.54	11
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	50	0.67	15
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	5,640	75.60	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	10	0.13	17
SUPERVISORS-PRODUCTION & OPERATING WORKERS	310	4.16	31
PRECISION INSPECTORS, TESTERS, AND GRADERS	170	2.28	18
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	60	0.80	N/A
ALL OTHER MACHINERY MAINTENANCE MECHANICS	10	0.13	N/A
MILLWRIGHTS	20	0.27	24
MAINTENANCE REPAIRERS, GENERAL UTILITY	20	0.27	45
HEATING, A/C & REFRIG MECHANICS & INSTALLERS	10	0.13	25
ELECTRICIANS	60	0.80	18
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	30	0.40	10
ALL OTHER CONSTRUCTION TRADES WORKERS	20	0.27	N/A
TOOL AND DIE MAKERS	210	2.82	20
MACHINISTS	60	0.80	26
ALL OTHER PRECISION METAL WORKERS	10	0.13	N/A
SOLDERING,BRAZING MACH OPERATORS AND TENDERS	20	0.27	25
PLAS MOLDING,CASTING MACH SETTERS,SET-UP OPER	30	0.40	25
PLASTIC MOLDING CASTING MACHINE OPER, TENDERS	110	1.47	25
ELECTROLYTIC PLATING, COATING MACHINE SETTERS	40	0.54	24
ELECTROLYTIC PLATING, COATING MACH OPERATORS	120	1.61	25
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	80	1.07	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	80	1.07	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	40	0.54	N/A
ALL OTHER PRECISION ASSEMBLERS, METAL	10	0.13	N/A
ALL OTHER PRECISION ASSEMBLERS, EXCEPT METAL	740	9.92	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# ELECTRICAL INDUSTRIAL APPARATUS
SIC = 362
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	3,040	40.75	23
ALL OTHER HAND WORKERS	300	4.02	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	20	0.27	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.13	38
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	50	0.67	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	10	0.13	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
.ELECTRICAL LIGHTING & WIRING EQUIPMENT
SIC = 364
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	6,720	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	490	7.29	N/A
FINANCIAL MANAGERS	40	0.60	14
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.30	14
PURCHASING MANAGERS	20	0.30	12
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	70	1.04	21
INDUSTRIAL PRODUCTION MANAGERS	90	1.34	23
GENERAL MANAGERS AND TOP EXECUTIVES	110	1.64	19
ALL OTHER MANAGERS AND ADMINISTRATORS	140	2.08	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	430	6.40	N/A
ACCOUNTANTS AND AUDITORS	20	0.30	22
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	40	0.60	18
COST ESTIMATORS	10	0.15	23
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.30	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	50	0.74	29
MECHANICAL ENGINEERS	50	0.74	29
ALL OTHER ENGINEERS	70	1.04	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	20	0.30	33
DRAFTERS	60	0.89	23
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	0.30	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.15	31
COMPUTER PROGRAMMERS	20	0.30	21
ALL OTHER MATHEMATICAL SCIENTISTS	20	0.30	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	20	0.30	N/A
SALES AND RELATED OCCUPATIONS	220	3.27	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	50	0.74	N/A
ALL OTHER SALES AND RELATED WORKERS	170	2.53	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	750	11.16	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	40	0.60	24
SECRETARIES	90	1.34	16
TYPISTS	20	0.30	33
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	20	0.30	19
FILE CLERKS	10	0.15	33
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	50	0.74	25
PROCUREMENT CLERKS	20	0.30	22
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	60	0.89	19
PAYROLL AND TIMEKEEPING CLERKS	20	0.30	21
BILLING, COST AND RATE CLERKS	20	0.30	23
GENERAL OFFICE CLERKS	40	0.60	31
DATA ENTRY KEYERS, EXCEPT COMPOSING	30	0.45	33

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
.ELECTRICAL LIGHTING & WIRING EQUIPMENT
SIC = 364
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER OFFICE MACHINE OPERATORS	10	0.15	N/A
SWITCHBOARD OPERATORS	20	0.30	21
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	70	1.04	15
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	80	1.19	19
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	100	1.49	17
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	20	0.30	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	60	0.89	N/A
SERVICE OCCUPATIONS	80	1.19	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	50	0.74	10
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.15	N/A
ALL OTHER SERVICE WORKERS	20	0.30	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	4,750	70.68	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	200	2.98	21
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	10	0.15	31
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	30	0.45	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	60	0.89	33
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	190	2.83	17
MACHINERY MAINTENANCE MECHANICS	30	0.45	32
MAINTENANCE REPAIRERS, GENERAL UTILITY	40	0.60	30
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.15	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	40	0.60	N/A
TOOL AND DIE MAKERS	170	2.53	27
ALL OTHER PRECISION WORKERS	240	3.57	N/A
PRESS & PRESS BRAKE MACH SETTERS&SET-UP OPER.	80	1.19	35
MACH FORMING OPER & TENDERS, METAL & PLASTIC	200	2.98	33
NONELECTROLYTIC PLATING,COATING MACH OPERATOR	30	0.45	35
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	370	5.51	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	400	5.95	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	100	1.49	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	230	3.42	N/A
ALL OTHER PRECISION ASSEMBLERS, METAL	260	3.87	N/A
ALL OTHER PRECISION ASSEMBLERS, EXCEPT METAL	430	6.40	N/A
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	780	11.61	30
ALL OTHER HAND WORKERS	220	3.27	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.15	30
ALL OTHER MOTOR VEHICLE OPERATORS	20	0.30	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	80	1.19	32
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	10	0.15	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	210	3.13	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	330	4.91	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
COMMUNICATIONS EQUIPMENT
SIC = 366
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	33,360	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	2,190	6.56	N/A
FINANCIAL MANAGERS	170	0.51	29
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	90	0.27	29
PURCHASING MANAGERS	40	0.12	25
INDUSTRIAL PRODUCTION MANAGERS	220	0.66	30
GENERAL MANAGERS AND TOP EXECUTIVES	440	1.32	29
ALL OTHER MANAGERS AND ADMINISTRATORS	1,240	3.72	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	9,570	28.69	N/A
ACCOUNTANTS AND AUDITORS	250	0.75	24
ALL OTHER FINANCIAL SPECIALISTS	240	0.72	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	240	0.72	26
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	120	0.36	33
ALL OTHER MANAGEMENT SUPPORT WORKERS	690	2.07	N/A
ELECTRICAL AND ELECTRONIC ENGINEERS	2,870	8.60	35
MECHANICAL ENGINEERS	470	1.41	20
ALL OTHER ENGINEERS	1,030	3.09	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	1,060	3.18	30
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	380	1.14	31
DRAFTERS	590	1.77	12
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	440	1.32	N/A
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	10	0.03	N/A
COMPUTER PROGRAMMERS	320	0.96	16
COMPUTER PROGRAMMER AIDES	80	0.24	35
ALL OTHER MATHEMATICAL SCIENTISTS	240	0.72	N/A
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	20	0.06	N/A
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	20	0.06	34
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	520	1.56	N/A
SALES AND RELATED OCCUPATIONS	210	0.63	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	30	0.09	N/A
ALL OTHER SALES AND RELATED WORKERS	190	0.57	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	5,240	15.71	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	420	1.26	15
SECRETARIES	1,000	3.00	25
STENOGRAPHERS	110	0.33	22
TYPISTS	270	0.81	27
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	80	0.24	35
FILE CLERKS	60	0.18	31
PROCUREMENT CLERKS	110	0.33	24
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	630	1.89	26

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
COMMUNICATIONS EQUIPMENT
SIC = 366
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PAYROLL AND TIMEKEEPING CLERKS	110	0.33	26
BILLING, COST AND RATE CLERKS	150	0.45	22
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	140	0.42	23
DATA ENTRY KEYERS, EXCEPT COMPOSING	180	0.54	18
ALL OTHER OFFICE MACHINE OPERATORS	140	0.42	N/A
ALL OTHER COMMUNICATIONS EQUIPMENT OPERATORS	50	0.15	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	640	1.92	17
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	320	0.96	21
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	190	0.57	23
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	60	0.18	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	590	1.77	N/A
SERVICE OCCUPATIONS	840	2.52	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	270	0.81	16
GUARDS AND WATCH GUARDS	270	0.81	20
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	240	0.72	32
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	20	0.06	N/A
ALL OTHER SERVICE WORKERS	50	0.15	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	15,320	45.92	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	100	0.30	34
SUPERVISORS-CONSTRUCTION & EXTRACTIVE WORKERS	60	0.18	28
SUPERVISORS-PRODUCTION & OPERATING WORKERS	500	1.50	16
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	60	0.18	25
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.03	N/A
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	2,930	8.78	N/A
ALL OTHER MACHINERY MAINTENANCE MECHANICS	120	0.36	N/A
MILLWRIGHTS	80	0.24	19
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	200	0.60	N/A
ALL OTHER ELEC & ELECTR EQUIP MECH,REP,INSTAL	180	0.54	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	60	0.18	N/A
ELECTRICIANS	110	0.33	22
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	40	0.12	9
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	70	0.21	29
ALL OTHER CONSTRUCTION TRADES WORKERS	60	0.18	N/A
TOOL AND DIE MAKERS	240	0.72	13
MACHINISTS	530	1.59	29
SHEET METAL WORKERS	180	0.54	32
ALL OTHER PRECISION METAL WORKERS	140	0.42	N/A
ALL OTHER PRECISION WORKERS	20	0.06	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	270	0.81	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	340	1.02	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
COMMUNICATIONS EQUIPMENT
SIC = 366
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER PRINTING PRESS SETTERS, SET-UP OPER	10	0.03	N/A
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	50	0.15	N/A
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	10	0.03	N/A
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	60	0.18	35
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	710	2.13	45
ALL OTHER MACHINE OPERATORS AND TENDERS	750	2.25	N/A
ALL OTHER PRECISION ASSEMBLERS, METAL	290	0.87	N/A
ALL OTHER PRECISION ASSEMBLERS, EXCEPT METAL	1,490	4.47	N/A
ELECTRICAL & ELECTRONIC ASSEMBLERS	3,570	10.70	10
ALL OTHER HAND WORKERS	900	2.70	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	30	0.09	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	60	0.18	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	560	1.68	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	540	1.62	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	20	0.06	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ELECTRONIC COMPONENTS AND ACCESSORIES
SIC = 367
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	53,980	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	5,440	10.08	N/A
FINANCIAL MANAGERS	600	1.11	N/A
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	180	0.33	N/A
PURCHASING MANAGERS	190	0.35	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	540	1.00	N/A
INDUSTRIAL PRODUCTION MANAGERS	620	1.15	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	1,800	3.33	N/A
ALL OTHER MANAGERS AND ADMINISTRATORS	1,510	2.80	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	10,990	20.36	N/A
ACCOUNTANTS AND AUDITORS	630	1.17	N/A
ALL OTHER FINANCIAL SPECIALISTS	160	0.30	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	830	1.54	N/A
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	160	0.30	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	380	0.70	N/A
ELECTRICAL AND ELECTRONIC ENGINEERS	2,400	4.45	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	300	0.56	N/A
MECHANICAL ENGINEERS	550	1.02	N/A
ALL OTHER ENGINEERS	160	0.30	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	2,490	4.61	N/A
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	180	0.33	N/A
DRAFTERS	770	1.43	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	240	0.44	N/A
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	110	0.20	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	360	0.67	N/A
COMPUTER PROGRAMMERS	380	0.70	N/A
PROGRAMMERS-NUMERICAL, TOOL & PROCESS CONTROL	190	0.35	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	120	0.22	N/A
TECHNICAL WRITERS	110	0.20	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	470	0.87	N/A
SALES AND RELATED OCCUPATIONS	1,120	2.07	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	80	0.15	N/A
SALES ENGINEERS	220	0.41	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	490	0.91	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	190	0.35	N/A
ALL OTHER SALES AND RELATED WORKERS	150	0.28	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	6,300	11.67	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	280	0.52	N/A
SECRETARIES	1,870	3.46	N/A
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	180	0.33	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ELECTRONIC COMPONENTS AND ACCESSORIES
SIC = 367
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	640	1.19	N/A
BILLING, COST AND RATE CLERKS	110	0.20	N/A
GENERAL OFFICE CLERKS	280	0.52	N/A
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	140	0.26	N/A
ALL OTHER OFFICE MACHINE OPERATORS	130	0.24	N/A
ALL OTHER COMMUNICATIONS EQUIPMENT OPERATORS	70	0.13	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	750	1.39	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	610	1.13	N/A
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	570	1.06	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	670	1.24	N/A
SERVICE OCCUPATIONS	650	1.20	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	500	0.93	N/A
ALL OTHER SERVICE WORKERS	150	0.28	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	29,480	54.61	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	1,940	3.59	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	90	0.17	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	3,340	6.19	N/A
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	2,540	4.71	N/A
MACHINERY MAINTENANCE MECHANICS	180	0.33	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	330	0.61	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	150	0.28	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	110	0.20	N/A
TOOL AND DIE MAKERS	260	0.48	N/A
MACHINISTS	1,180	2.19	N/A
SHEET METAL WORKERS	150	0.28	N/A
ALL OTHER PRECISION WORKERS	480	0.89	N/A
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	250	0.46	N/A
DRILL & BORE MACH TOOL SETTERS & SET-UP OPER.	170	0.31	N/A
MACHINE TOOL CUTTING OPERATORS & TENDERS	380	0.70	N/A
MACH FORMING OPER & TENDERS, METAL & PLASTIC	380	0.70	N/A
NUM CONT MACH TOOL OPER, TEND, METAL PLASTIC	110	0.20	N/A
MACH TOOL SETTER & SET-UP OPER, METAL PLASTIC	180	0.33	N/A
PLASTIC MOLDING CASTING MACHINE OPER, TENDERS	160	0.30	N/A
ELECTROLYTIC PLATING, COATING MACHINE SETTERS	180	0.33	N/A
ELECTROLYTIC PLATING, COATING MACH OPERATORS	670	1.24	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	170	0.31	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	170	0.31	N/A
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	220	0.41	N/A
ELECTRONIC SEMICONDUCTOR PROCESSORS	890	1.65	N/A
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	250	0.46	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ELECTRONIC COMPONENTS AND ACCESSORIES
SIC = 367
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	120	0.22	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	120	0.22	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	520	0.96	N/A
ALL OTHER PRECISION ASSEMBLERS, METAL	270	0.50	N/A
ALL OTHER PRECISION ASSEMBLERS, EXCEPT METAL	7,330	13.58	N/A
COIL WINDERS, TAPERS AND FINISHERS	980	1.82	N/A
SOLDERERS AND BRAZERS	540	1.00	N/A
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	2,010	3.72	N/A
ALL OTHER HAND WORKERS	1,200	2.22	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	220	0.41	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	90	0.17	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	150	0.28	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	1,030	1.91	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

SIC 372 and 373

The industry group, Transportation Equipment (SIC 37), includes establishments engaged in the manufacture of equipment for the transportation of passengers and cargo by land, air, and water. Due to the quality of the survey response, occupational distributions are published for only two of the six 3-digit industries comprising this SIC. The two industrial sectors for which occupational profiles were constructed and published are Aircraft and Parts (SIC 372), and Ship and Boat Building and Repairing (SIC 373).

The four industrial segments which failed to meet the requisite criteria for publication were the following: Motor Vehicles and Equipment (SIC 371); Motorcycle and Bicycle Parts (SIC 375); Guided Missiles and Space Vehicles and Parts (SIC 376) ; and Miscellaneous Transportation Equipment (SIC 379).

The Production, Construction, and Maintenance occupational category is the largest in both SIC 372 and SIC 373. In SIC 372, this occupational group accounts for 4,810 jobs or approximately 47 percent of total employment. In SIC 373, the same grouping accounts for 2,970 jobs or approximately 70 percent of total employment.

In SIC 372, the largest number of jobs in the Production, Construction, and Maintenance grouping is found in the mechanical engineer occupation at 740 or approximately 28 percent of the total grouping. In SIC 373, the occupation with the largest number of jobs in this same occupational grouping is welders and cutters at 330 or approximately 11 percent of the total employment in the category.

TABLE
OCCUPATIONS OF EMPLOYEES
AIRCRAFT AND PARTS
SIC = 372
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	10,190	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,500	14.72	N/A
FINANCIAL MANAGERS	10	0.10	9
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	30	0.29	3
INDUSTRIAL PRODUCTION MANAGERS	210	2.06	5
GENERAL MANAGERS AND TOP EXECUTIVES	1,010	9.91	5
ALL OTHER MANAGERS AND ADMINISTRATORS	240	2.36	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	2,630	25.81	N/A
ACCOUNTANTS AND AUDITORS	190	1.86	5
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	70	0.69	5
ALL OTHER MANAGEMENT SUPPORT WORKERS	30	0.29	N/A
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	30	0.29	4
METALLURGISTS & METAL.CERAMIC, MATERIALS ENG	10	0.10	N/A
CIVIL ENGINEERS, INCLUDING TRAFFIC	20	0.20	4
ELECTRICAL AND ELECTRONIC ENGINEERS	20	0.20	10
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	400	3.93	4
SAFETY ENGINEERS, EXCEPT MINING	10	0.10	N/A
MECHANICAL ENGINEERS	740	7.26	5
ALL OTHER ENGINEERS	10	0.10	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	100	0.98	3
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	10	0.10	N/A
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	30	0.29	4
DRAFTERS	100	0.98	12
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	110	1.08	3
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	50	0.49	5
COMPUTER PROGRAMMERS	20	0.20	N/A
PROGRAMMERS-NUMERICAL, TOOL & PROCESS CONTROL	20	0.20	N/A
OPER & SYS RESEARCHERS & ANALYST,EXC COMMUNI	10	0.10	20
STATISTICIANS	10	0.10	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	40	0.39	N/A
LAWYERS	10	0.10	N/A
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	20	0.20	N/A
TECHNICAL WRITERS	60	0.59	5
DESIGNERS, EXCEPT INTERIOR DESIGNERS	160	1.57	5
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	380	3.73	5
SALES AND RELATED OCCUPATIONS	30	0.29	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	10	0.10	24
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	10	0.10	22
ALL OTHER SALES AND RELATED WORKERS	**	0.00	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,140	11.19	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
AIRCRAFT AND PARTS
SIC = 372
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SECRETARIES	240	2.36	4
STENOGRAPHERS	60	0.59	4
TYPISTS	30	0.29	5
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.10	N/A
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	10	0.10	N/A
PROCUREMENT CLERKS	40	0.39	4
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	40	0.39	8
PAYROLL AND TIMEKEEPING CLERKS	10	0.10	N/A
BILLING, COST AND RATE CLERKS	20	0.20	N/A
GENERAL OFFICE CLERKS	50	0.49	8
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	40	0.39	5
PERIPHERAL EDP EQUIPMENT OPERATORS	10	0.10	N/A
DATA ENTRY KEYERS, EXCEPT COMPOSING	30	0.29	5
ALL OTHER OFFICE MACHINE OPERATORS	20	0.20	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	300	2.94	8
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	120	1.18	1
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	100	0.98	5
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	0.20	N/A
SERVICE OCCUPATIONS	80	0.79	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	**	0.00	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	70	0.69	5
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	4,810	47.20	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	110	1.08	11
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.10	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	400	3.93	2
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	110	1.08	14
MACHINERY MAINTENANCE MECHANICS	30	0.29	N/A
MACHINERY MAINTENANCE WORKERS	30	0.29	20
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.10	14
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	30	0.29	N/A
PRECISION INSTRUMENT REPAIRERS	10	0.10	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	40	0.39	5
ELECTRICIANS	30	0.29	9
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	30	0.29	6
TOOL AND DIE MAKERS	130	1.28	5
MACHINISTS	660	6.48	9
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	190	1.86	5
SHEET METAL WORKERS	590	5.79	9
ALL OTHER PRECISION METAL WORKERS	20	0.20	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# AIRCRAFT AND PARTS
SIC = 372
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	560	5.50	9
DRILL & BORE MACH TOOL SETTERS & SET-UP OPER.	170	1.67	5
MILL & PLANING MACH SETTERS & SET-UP OPERATOR	100	0.98	20
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	90	0.88	12
MACHINE TOOL CUTTING OPERATORS & TENDERS	170	1.67	15
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	80	0.79	5
NUM CONT MACH TOOL OPER, TEND, METAL PLASTIC	240	2.36	4
MACH TOOL SETTER & SET-UP OPER, METAL PLASTIC	30	0.29	33
WELDING MACHINE SETTERS AND SET-UP OPERATORS	100	0.98	21
WELDING MACHINE OPERATORS AND TENDERS	10	0.10	24
HEAT TREATING,ANNEAL,TEMPERING OPER. & TEND.	30	0.29	20
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	10	0.10	N/A
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	10	0.10	N/A
AIRCRAFT STRUCTURE & SYSTEMS ASSEMBLER-PREC.	20	0.20	N/A
MACH BUILDERS & OTHER PRECISION MACH ASSEMBL.	330	3.24	5
ALL OTHER PRECISION ASSEMBLERS, EXCEPT METAL	20	0.20	N/A
WELDERS AND CUTTERS	270	2.65	9
SOLDERERS AND BRAZERS	10	0.10	20
GRINDING & POLISHING WORKERS, HAND	110	1.08	5
STATIONARY ENGINEERS	10	0.10	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.10	8
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	10	0.10	22
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	10	0.10	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
SHIP AND BOAT BUILDING AND REPAIRING
SIC = 373
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,210	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	250	5.94	N/A
FINANCIAL MANAGERS	20	0.48	9
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.48	N/A
PURCHASING MANAGERS	20	0.48	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.24	N/A
ADMINISTRATIVE SERVICES MANAGERS	10	0.24	11
INDUSTRIAL PRODUCTION MANAGERS	70	1.66	11
GENERAL MANAGERS AND TOP EXECUTIVES	100	2.38	8
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.24	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	490	11.64	N/A
ACCOUNTANTS AND AUDITORS	10	0.24	N/A
BUDGET ANALYSTS	10	0.24	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	40	0.95	10
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	30	0.71	N/A
COST ESTIMATORS	30	0.71	5
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.24	N/A
CHEMICAL ENGINEERS	20	0.48	N/A
CIVIL ENGINEERS, INCLUDING TRAFFIC	10	0.24	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	10	0.24	N/A
MECHANICAL ENGINEERS	40	0.95	6
MARINE ENGINEERS	60	1.43	3
ALL OTHER ENGINEERS	10	0.24	N/A
MARINE ARCHITECTS	40	0.95	N/A
DRAFTERS	30	0.71	9
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.24	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.24	N/A
TECHNICAL WRITERS	10	0.24	N/A
DESIGNERS, EXCEPT INTERIOR DESIGNERS	120	2.85	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.24	N/A
SALES AND RELATED OCCUPATIONS	30	0.71	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	20	0.48	39
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	10	0.24	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	430	10.21	N/A
SECRETARIES	90	2.14	13
TYPISTS	10	0.24	25
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.24	N/A
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	20	0.48	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	40	0.95	23
PAYROLL AND TIMEKEEPING CLERKS	10	0.24	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
SHIP AND BOAT BUILDING AND REPAIRING
SIC = 373
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.24	N/A
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.24	N/A
SWITCHBOARD OPERATORS	10	0.24	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	140	3.33	1
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	40	0.95	10
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	20	0.48	18
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	30	0.71	N/A
SERVICE OCCUPATIONS	50	1.19	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	20	0.48	N/A
GUARDS AND WATCH GUARDS	30	0.71	5
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,970	70.55	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	210	4.99	7
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	40	0.95	6
MAINTENANCE REPAIRERS, GENERAL UTILITY	20	0.48	26
AUTOMOTIVE MECHANICS	40	0.95	28
RIGGERS	50	1.19	39
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	20	0.48	N/A
CARPENTERS	180	4.28	19
ELECTRICIANS	120	2.85	5
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	60	1.43	N/A
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	220	5.23	12
INSULATION WORKERS	30	0.71	5
MACHINISTS	120	2.85	19
PRECISION LAYOUT WORKERS, METAL	10	0.24	N/A
SHIPFITTERS	230	5.46	8
SHEET METAL WORKERS	210	4.99	1
PATTERN AND MODEL MAKERS, WOOD	10	0.24	34
ALL OTHER PRECISION WOODWORKERS	40	0.95	N/A
ALL OTHER PRECISION WORKERS	10	0.24	N/A
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	80	1.90	17
WELDING MACHINE SETTERS AND SET-UP OPERATORS	50	1.19	41
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	10	0.24	N/A
PAINTERS, TRANSPORTATION EQUIPMENT	40	0.95	20
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	10	0.24	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	30	0.71	N/A
ALL OTHER PRECISION ASSEMBLERS, METAL	40	0.95	N/A
WELDERS AND CUTTERS	330	7.84	12
GRINDING & POLISHING WORKERS, HAND	160	3.80	2
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	190	4.51	50
ALL OTHER HAND WORKERS	10	0.24	38

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
SHIP AND BOAT BUILDING AND REPAIRING
SIC = 373
REFERENCE DATE JUNE, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.24	N/A
CRANE AND TOWER OPERATORS	50	1.19	4
MECHANIC AND REPAIRER HELPERS	20	0.48	39
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	60	1.43	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	240	5.70	45

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

SIC 38

This major group includes establishments engaged in manufacturing instruments (including professional and scientific) for measuring, testing, analyzing, and controlling, and their associated sensors and accessories; optical instruments and lenses; surveying and drafting instruments and supplies; photographic equipment and supplies; and watches and clocks.

Employment in the instruments and related products industry has fallen one percent since the 1980 survey; a time period which saw a 6 percent drop in all manufacturing employment. However, instruments as a percentage of all manufacturing employment rose .4 percent to 9.1 percent within the same time period.

PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

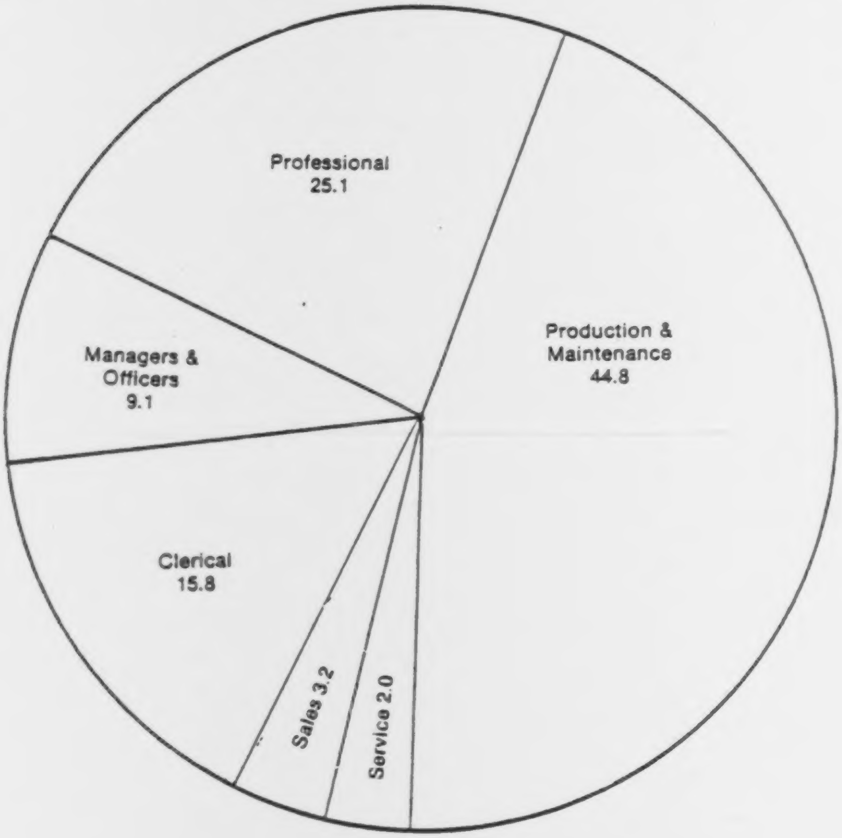
	38	381	382	383	385	386	387
TOTAL	100%	100%	100%	100%	100%	100%	100%
Managerial & Admin. Occs.	9.04	9.64	9.15	11.81	5.30	9.02	4.95
Prof., & Tech. Occs.	25.04	32.55	24.34	38.26	6.18	33.27	5.94
Sales Occs.	3.17	4.17	3.84	1.99	1.77	.79	2.97
Clerical Occs.	15.77	13.54	18.30	15.79	14.35	12.61	10.89
Service Occs.	1.98	2.08	2.33	1.42	1.32	2.54	1.98
Prod., & Maint. Occs.	44.80	38.02	41.81	30.73	70.86	41.77	73.27

The occupational distribution within this industry group shows strong employment levels in the professional and technical occupational categories in SIC 381 (engineering and scientific instruments), 383 (optical instruments and lenses) and 386 (photo equipment and supplies). These high employment levels in the professional and technical categories are due to the engineering and technicial titles (electrical, electronic, mechanical and related fields) which dominate the Research and Development areas.

Conversely, SICs 385 (opthalmic goods) and 387 (watches, clocks, and watch-cases) have a higher percentage in production and maintenance occupations due to assembly and fabrication and machine operators and tenders that are required in these industries.

INSTRUMENTS AND RELATED PRODUCTS (SIC 38)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Cementing and Gluing Machine, Operators and Tenders	4,370
2.	All Other Machine Operators and Tenders	2,680
3.	Secretaries	2,300
4.	Electrical and Electronic Engineering Technicians and Technologists	2,200
5.	Electrical and Electronic Engineers	2,190
6.	Electrical and Electronic Assemblers	1,850
7.	Supervisors-Production and Operating Workers	1,830
8.	General Managers and Top Executives	1,640
9.	All Other Managers and Administrators	1,590
10.	All Other Engineers	1,490

These 10 occupational categories make 38.5% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
INSTRUMENTS AND RELATED PRODUCTS
SIC = 38
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	57,500	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	5,200	9.04	N/A
FINANCIAL MANAGERS	310	0.54	14
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	190	0.33	11
PURCHASING MANAGERS	120	0.21	18
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	540	0.94	23
ADMINISTRATIVE SERVICES MANAGERS	240	0.42	46
INDUSTRIAL PRODUCTION MANAGERS	570	0.99	21
GENERAL MANAGERS AND TOP EXECUTIVES	1,640	2.85	21
ALL OTHER MANAGERS AND ADMINISTRATORS	1,590	2.77	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	14,400	25.04	N/A
ACCOUNTANTS AND AUDITORS	280	0.49	14
BUDGET ANALYSTS	210	0.37	6
ALL OTHER FINANCIAL SPECIALISTS	130	0.23	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	490	0.85	12
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	240	0.42	8
COST ESTIMATORS	170	0.30	26
ALL OTHER MANAGEMENT SUPPORT WORKERS	720	1.25	N/A
CHEMICAL ENGINEERS	160	0.28	48
ELECTRICAL AND ELECTRONIC ENGINEERS	2,190	3.81	16
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	400	0.70	25
MECHANICAL ENGINEERS	560	0.97	20
ALL OTHER ENGINEERS	1,490	2.59	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	2,200	3.83	15
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	1,340	2.33	12
DRAFTERS	890	1.55	11
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	1,020	1.77	N/A
PHYSICISTS AND ASTRONOMERS	20	0.03	22
ALL OTHER PHYSICAL SCIENTISTS	320	0.56	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	310	0.54	17
COMPUTER PROGRAMMERS	290	0.50	14
COMPUTER PROGRAMMER AIDES	70	0.12	22
PROGRAMMERS-NUMERICAL, TOOL & PROCESS CONTROL	30	0.05	31
OPER & SYS RESEARCHERS & ANALYST,EXC COMMUNI	10	0.02	14
OPTICIANS, DISPENSING AND MEASURING	50	0.09	35
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	130	0.23	N/A
WRITERS AND EDITORS	70	0.12	26
TECHNICAL WRITERS	120	0.21	16
DESIGNERS, EXCEPT INTERIOR DESIGNERS	290	0.50	14
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	200	0.35	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
INSTRUMENTS AND RELATED PRODUCTS
SIC = 38
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SALES AND RELATED OCCUPATIONS	1,820	3.17	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	230	0.40	35
SALES ENGINEERS	590	1.03	30
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	710	1.23	28
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	180	0.31	32
ALL OTHER SALES AND RELATED WORKERS	110	0.19	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	9,070	15.77	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	360	0.63	27
SECRETARIES	2,300	4.00	9
RECEPTIONIST AND INFORMATION CLERKS	80	0.14	35
TYPISTS	360	0.63	25
TYPISTS, WORD PROCESSING EQUIPMENT	110	0.19	26
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	60	0.10	25
FILE CLERKS	310	0.54	29
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	210	0.37	20
PROCUREMENT CLERKS	110	0.19	17
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	820	1.43	14
PAYROLL AND TIMEKEEPING CLERKS	100	0.17	32
BILLING, COST AND RATE CLERKS	140	0.24	27
GENERAL OFFICE CLERKS	580	1.01	15
BILLING, POSTING, CALCULATING MACH. OPERATORS	30	0.05	11
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	190	0.33	13
PERIPHERAL EDP EQUIPMENT OPERATORS	10	0.02	8
DATA ENTRY KEYERS, EXCEPT COMPOSING	210	0.37	17
ALL OTHER OFFICE MACHINE OPERATORS	10	0.02	N/A
SWITCHBOARD OPERATORS	200	0.35	17
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	970	1.69	13
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	770	1.34	11
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	750	1.30	11
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	60	0.10	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	330	0.57	N/A
SERVICE OCCUPATIONS	1,140	1.98	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	60	0.10	38
GUARDS AND WATCH GUARDS	330	0.57	15
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	650	1.13	9
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	20	0.03	N/A
ALL OTHER SERVICE WORKERS	80	0.14	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	50	0.09	N/A
GARDENERS AND GROUNDSKEEPERS, EXCEPT FARM	50	0.09	14

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
INSTRUMENTS AND RELATED PRODUCTS
SIC = 38
-REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	25,760	44.80	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	1,830	3.18	8
PRECISION INSPECTORS, TESTERS, AND GRADERS	1,060	1.84	19
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	1,490	2.59	11
MACHINERY MAINTENANCE MECHANICS	130	0.23	32
MAINTENANCE REPAIRERS, GENERAL UTILITY	530	0.92	10
PRECISION INSTRUMENT REPAIRERS	470	0.82	46
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	580	1.01	N/A
CARPENTERS	100	0.17	14
ELECTRICIANS	280	0.49	7
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	50	0.09	19
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	110	0.19	10
ALL OTHER CONSTRUCTION TRADES WORKERS	50	0.09	N/A
TOOL AND DIE MAKERS	280	0.49	23
PRECISION INSTRUMENT MAKERS	150	0.26	22
MACHINISTS	1,100	1.91	24
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	50	0.09	35
SHEET METAL WORKERS	90	0.16	14
PRECISION WOODWORKERS	70	0.12	12
PRECISION OPTICAL GOODS WORKERS	430	0.75	25
ALL OTHER PRECISION WORKERS	30	0.05	N/A
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	190	0.33	38
DRILL & BORE MACH TOOL SETTERS & SET-UP OPER.	170	0.30	45
MILL & PLANING MACH SETTERS & SET-UP OPERATOR	90	0.16	41
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	100	0.17	29
MACHINE TOOL CUTTING OPERATORS & TENDERS	620	1.08	30
MACH FORMING OPER & TENDERS, METAL & PLASTIC	360	0.63	35
NUM CONT MACH TOOL OPER, TEND, METAL PLASTIC	200	0.35	34
ELECTROLYTIC PLATING, COATING MACHINE SETTERS	50	0.09	31
NONELECTROLYTIC PLATING, COATING MACH SETTERS	10	0.02	28
NONELECTROLYTIC PLATING,COATING MACH OPERATOR	50	0.09	9
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	210	0.37	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	490	0.85	N/A
CHEMICAL EQUIPMENT CONTROLLERS AND OPERATORS	280	0.49	11
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	330	0.57	23
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	60	0.10	50
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	110	0.19	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	2,680	4.66	N/A
ELEC.& ELECTRONIC EQUIP ASSEMBLER - PRECISION	1,460	2.54	28
WATCH,CLOCK,CHRONOMETER ASSEMB,ADJUST.,CALIB.	240	0.42	34

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
INSTRUMENTS AND RELATED PRODUCTS
SIC = 38
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER PRECISION ASSEMBLERS, METAL	780	1.36	N/A
ELECTRICAL & ELECTRONIC ASSEMBLERS	1,850	3.22	32
WELDERS AND CUTTERS	210	0.37	35
PAINTING, COATING & DECORATING WORKERS- HAND	50	0.09	29
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	4,370	7.60	21
ALL OTHER HAND WORKERS	1,040	1.81	N/A
STATIONARY ENGINEERS	30	0.05	29
ALL OTHER PLANT AND SYSTEM OPERATORS	10	0.02	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	10	0.02	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	70	0.12	16
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	80	0.14	38
CONSTRUCTION TRADES, EXTRACTIVE WORKER HELPER	40	0.07	15
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	260	0.45	30
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	380	0.66	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ENGINEERING & SCIENTIFIC INSTRUMENTS
SIC = 381
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	3,840	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	370	9.64	N/A
FINANCIAL MANAGERS	30	0.78	11
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.52	13
PURCHASING MANAGERS	10	0.26	17
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	20	0.52	20
ADMINISTRATIVE SERVICES MANAGERS	10	0.26	N/A
INDUSTRIAL PRODUCTION MANAGERS	40	1.04	7
GENERAL MANAGERS AND TOP EXECUTIVES	190	4.95	17
ALL OTHER MANAGERS AND ADMINISTRATORS	50	1.30	7
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	1,250	32.55	N/A
ACCOUNTANTS AND AUDITORS	20	0.52	10
BUDGET ANALYSTS	20	0.52	N/A
ALL OTHER FINANCIAL SPECIALISTS	10	0.26	12
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	60	1.56	9
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	20	0.52	15
COST ESTIMATORS	10	0.26	17
ALL OTHER MANAGEMENT SUPPORT WORKERS	80	2.08	7
ELECTRICAL AND ELECTRONIC ENGINEERS	240	6.25	17
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	50	1.30	5
MECHANICAL ENGINEERS	90	2.34	22
ALL OTHER ENGINEERS	70	1.82	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	320	8.33	21
INDUSTRIAL ENGINEERING TECHNICIANS & TECHNOL.	10	0.26	14
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	50	1.30	3
DRAFTERS	90	2.34	26
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.26	12
CHEMISTS, EXCEPT BIOCHEMISTS	10	0.26	46
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	10	0.26	47
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	20	0.52	16
COMPUTER PROGRAMMERS	40	1.04	11
PROGRAMMERS-NUMERICAL, TOOL & PROCESS CONTROL	10	0.26	28
TECHNICAL WRITERS	10	0.26	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	20	0.52	N/A
SALES AND RELATED OCCUPATIONS	160	4.17	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	20	0.52	27
SALES ENGINEERS	40	1.04	31
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	100	2.60	21

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ENGINEERING & SCIENTIFIC INSTRUMENTS
SIC = 381
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	520	13.54	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	20	0.52	17
SECRETARIES	120	3.13	14
RECEPTIONIST AND INFORMATION CLERKS	10	0.26	20
TYPISTS	30	0.78	7
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.26	14
FILE CLERKS	10	0.26	N/A
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	10	0.26	11
PROCUREMENT CLERKS	10	0.26	17
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	90	2.34	14
PAYROLL AND TIMEKEEPING CLERKS	10	0.26	N/A
BILLING, COST AND RATE CLERKS	10	0.26	28
GENERAL OFFICE CLERKS	30	0.78	16
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.26	N/A
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.26	20
ALL OTHER OFFICE MACHINE OPERATORS	10	0.26	N/A
SWITCHBOARD OPERATORS	20	0.52	24
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	20	0.52	9
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	40	1.04	21
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	40	1.04	18
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.26	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	30	0.78	N/A
SERVICE OCCUPATIONS	80	2.08	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.26	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	60	1.56	24
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	20	0.52	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,460	38.02	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	100	2.60	18
PRECISION INSPECTORS, TESTERS, AND GRADERS	140	3.65	12
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	50	1.30	16
MACHINERY MAINTENANCE MECHANICS	10	0.26	43
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.26	N/A
PRECISION INSTRUMENT REPAIRERS	30	0.78	19
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	30	0.78	N/A
CARPENTERS	10	0.26	11
ELECTRICIANS	10	0.26	N/A
TOOL AND DIE MAKERS	10	0.26	16
PRECISION INSTRUMENT MAKERS	40	1.04	41

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ENGINEERING & SCIENTIFIC INSTRUMENTS
SIC = 381

REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
MACHINISTS	110	2.86	21
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	10	0.26	40
SHEET METAL WORKERS	20	0.52	41
ALL OTHER PRECISION WORKERS	10	0.26	N/A
DRILL & BORE MACH TOOL SETTERS & SET-UP OPER.	10	0.26	24
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	20	0.52	7
MACHINE TOOL CUTTING OPERATORS & TENDERS	10	0.26	40
MACH FORMING OPER & TENDERS, METAL & PLASTIC	10	0.26	16
NUM CONT MACH TOOL OPER, TEND, METAL PLASTIC	10	0.26	47
MACH TOOL SETTER & SET-UP OPER, METAL PLASTIC	10	0.26	47
NONELECTROLYTIC PLATING, COATING MACH SETTERS	10	0.26	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	50	1.30	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	10	0.26	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	10	0.26	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	20	0.52	N/A
ELECTROMECHANICAL EQUIP ASSEMB.-PRECISION	180	4.69	17
ELEC.& ELECTRONIC EQUIP ASSEMBLER - PRECISION	80	2.08	40
ALL OTHER PRECISION ASSEMBLERS, METAL	30	0.78	N/A
MACHINE ASSEMBLERS	30	0.78	19
ELECTRICAL & ELECTRONIC ASSEMBLERS	230	5.99	26
SOLDERERS AND BRAZERS	40	1.04	48
PAINTING, COATING & DECORATING WORKERS- HAND	10	0.26	29
GRINDING & POLISHING WORKERS, HAND	10	0.26	12
ALL OTHER HAND WORKERS	70	1.82	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	10	0.26	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	10	0.26	N/A

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MEASURING & CONTROLLING INSTRUMENTS
SIC = 382
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	21,860	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	2,000	9.15	N/A
FINANCIAL MANAGERS	110	0.50	33
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	60	0.27	28
PURCHASING MANAGERS	60	0.27	26
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	250	1.14	33
GENERAL MANAGERS AND TOP EXECUTIVES	700	3.20	45
ALL OTHER MANAGERS AND ADMINISTRATORS	830	3.80	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	5,320	24.34	N/A
ACCOUNTANTS AND AUDITORS	190	0.87	17
BUDGET ANALYSTS	20	0.09	41
ALL OTHER FINANCIAL SPECIALISTS	10	0.05	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	210	0.96	24
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	70	0.32	16
ALL OTHER MANAGEMENT SUPPORT WORKERS	50	0.23	N/A
ELECTRICAL AND ELECTRONIC ENGINEERS	1,380	6.31	24
MECHANICAL ENGINEERS	200	0.91	29
ALL OTHER ENGINEERS	430	1.97	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	1,250	5.72	23
DRAFTERS	340	1.56	27
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	370	1.69	N/A
ALL OTHER PHYSICAL SCIENTISTS	30	0.14	N/A
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	10	0.05	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	170	0.78	29
COMPUTER PROGRAMMERS	140	0.64	28
COMPUTER PROGRAMMER AIDES	50	0.23	30
ALL OTHER MATHEMATICAL SCIENTISTS	20	0.09	N/A
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	30	0.14	34
WRITERS AND EDITORS	50	0.23	40
TECHNICAL WRITERS	70	0.32	24
DESIGNERS, EXCEPT INTERIOR DESIGNERS	120	0.55	24
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	120	0.55	25
SALES AND RELATED OCCUPATIONS	840	3.84	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	110	0.50	N/A
SALES ENGINEERS	480	2.20	35
ALL OTHER SALES AND RELATED WORKERS	260	1.19	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	4,000	18.30	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	210	0.96	24
SECRETARIES	910	4.16	17
TYPISTS	160	0.73	33

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MEASURING & CONTROLLING INSTRUMENTS
SIC = 382
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TYPISTS, WORD PROCESSING EQUIPMENT	30	0.14	48
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	30	0.14	45
FILE CLERKS	280	1.28	32
PROCUREMENT CLERKS	50	0.23	37
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	310	1.42	33
BILLING, COST AND RATE CLERKS	80	0.37	42
GENERAL OFFICE CLERKS	170	0.78	34
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	90	0.41	21
DATA ENTRY KEYERS, EXCEPT COMPOSING	150	0.69	23
ALL OTHER OFFICE MACHINE OPERATORS	10	0.05	N/A
SWITCHBOARD OPERATORS	80	0.37	33
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	580	2.65	20
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	230	1.05	30
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	410	1.88	14
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	50	0.23	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	170	0.78	N/A
SERVICE OCCUPATIONS	510	2.33	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	40	0.18	48
GUARDS AND WATCH GUARDS	110	0.50	40
ALL OTHER FOOD SERVICE WORKERS	20	0.09	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	290	1.33	16
ALL OTHER SERVICE WORKERS	50	0.23	17
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	40	0.18	N/A
GARDENERS AND GROUNDSKEEPERS, EXCEPT FARM	40	0.18	16
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	9,140	41.81	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	730	3.34	15
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	200	0.91	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	520	2.38	31
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	330	1.51	42
ALL OTHER MACHINERY MAINTENANCE MECHANICS	50	0.23	N/A
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	50	0.23	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	250	1.14	N/A
CARPENTERS	50	0.23	27
ELECTRICIANS	60	0.27	28
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	30	0.14	27
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	20	0.09	47
ALL OTHER CONSTRUCTION TRADES WORKERS	40	0.18	N/A
PRECISION INSTRUMENT MAKERS	70	0.32	36
MACHINISTS	490	2.24	46
SHEET METAL WORKERS	20	0.09	37

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE

OCCUPATIONS OF EMPLOYEES

MEASURING & CONTROLLING INSTRUMENTS

SIC = 382

REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER PRECISION METAL WORKERS	110	0.50	N/A
ALL OTHER PRECISION WORKERS	40	0.18	N/A
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	40	0.18	35
MACHINE TOOL CUTTING OPERATORS & TENDERS	540	2.47	32
NUM CONT MACH TOOL OPER, TEND, METAL PLASTIC	130	0.59	38
ELECTROLYTIC PLATING, COATING MACHINE SETTERS	50	0.23	31
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	380	1.74	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	330	1.51	N/A
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	40	0.18	32
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	30	0.14	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	370	1.69	N/A
ELEC.& ELECTRONIC EQUIP ASSEMBLER - PRECISION	1,040	4.76	38
WATCH,CLOCK,CHRONOMETER ASSEMB,ADJUST.,CALIB.	70	0.32	33
ALL OTHER PRECISION ASSEMBLERS, METAL	210	0.96	N/A
ALL OTHER PRECISION ASSEMBLERS, EXCEPT METAL	360	1.65	N/A
ELECTRICAL & ELECTRONIC ASSEMBLERS	1,100	5.03	46
WELDERS AND CUTTERS	140	0.64	42
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	700	3.20	39
ALL OTHER HAND WORKERS	240	1.10	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	20	0.09	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	40	0.18	20
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	60	0.27	43
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	160	0.73	43
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	20	0.09	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	60	0.27	N/A

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
OPTICAL INSTRUMENTS AND LENSES
SIC = 383
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	7,030	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	830	11.81	N/A
FINANCIAL MANAGERS	30	0.43	N/A
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	30	0.43	6
PURCHASING MANAGERS	20	0.28	6
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	40	0.57	7
ADMINISTRATIVE SERVICES MANAGERS	90	1.28	26
INDUSTRIAL PRODUCTION MANAGERS	240	3.41	33
GENERAL MANAGERS AND TOP EXECUTIVES	200	2.84	12
ALL OTHER MANAGERS AND ADMINISTRATORS	190	2.70	15
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	2,690	38.26	N/A
ACCOUNTANTS AND AUDITORS	30	0.43	20
ALL OTHER FINANCIAL SPECIALISTS	70	1.00	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	60	0.85	13
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	30	0.43	32
COST ESTIMATORS	120	1.71	31
ALL OTHER MANAGEMENT SUPPORT WORKERS	310	4.41	6
CHEMICAL ENGINEERS	100	1.42	34
ELECTRICAL AND ELECTRONIC ENGINEERS	340	4.84	18
MECHANICAL ENGINEERS	70	1.00	26
ALL OTHER ENGINEERS	330	4.69	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	270	3.84	8
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	110	1.56	34
DRAFTERS	150	2.13	7
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	510	7.25	28
ALL OTHER PHYSICAL SCIENTISTS	30	0.43	N/A
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	10	0.14	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.14	16
COMPUTER PROGRAMMERS	60	0.85	27
COMPUTER PROGRAMMER AIDES	10	0.14	8
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.14	N/A
TECHNICAL WRITERS	20	0.28	5
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	30	0.43	N/A
SALES AND RELATED OCCUPATIONS	140	1.99	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	20	0.28	17
SALES ENGINEERS	40	0.57	25
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	60	0.85	18
ALL OTHER SALES AND RELATED WORKERS	20	0.28	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,110	15.79	N/A
SECRETARIES	300	4.27	15

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
OPTICAL INSTRUMENTS AND LENSES
SIC = 383
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
RECEPTIONIST AND INFORMATION CLERKS	10	0.14	N/A
TYPISTS, WORD PROCESSING EQUIPMENT	30	0.43	11
PROCUREMENT CLERKS	30	0.43	8
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	100	1.42	7
PAYROLL AND TIMEKEEPING CLERKS	10	0.14	13
BILLING, COST AND RATE CLERKS	10	0.14	22
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	40	0.57	16
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.28	5
SWITCHBOARD OPERATORS	20	0.28	15
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	140	1.99	23
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	50	0.71	28
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	70	1.00	28
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	300	4.27	N/A
SERVICE OCCUPATIONS	100	1.42	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	30	0.43	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	70	1.00	7
ALL OTHER SERVICE WORKERS	10	0.14	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,160	30.73	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	190	2.70	23
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	20	0.28	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	190	2.70	27
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	60	0.85	22
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	30	0.43	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	50	0.71	N/A
CARPENTERS	10	0.14	17
ELECTRICIANS	20	0.28	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.14	N/A
PRECISION INSTRUMENT MAKERS	40	0.57	34
ALL OTHER PRECISION METAL WORKERS	310	4.41	N/A
PRECISION OPTICAL GOODS WORKERS	240	3.41	34
ALL OTHER PRECISION WORKERS	20	0.28	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	60	0.85	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	100	1.42	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	10	0.14	N/A
ELEC.& ELECTRONIC EQUIP ASSEMBLER - PRECISION	280	3.98	33
ALL OTHER PRECISION ASSEMBLERS, METAL	80	1.14	N/A
ELECTRICAL & ELECTRONIC ASSEMBLERS	220	3.13	19
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	110	1.56	23
ALL OTHER HAND WORKERS	90	1.28	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	20	0.28	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
OPHTHALMIC GOODS
SIC = 385
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,530	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	240	5.30	N/A
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.44	17
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	30	0.66	37
INDUSTRIAL PRODUCTION MANAGERS	30	0.66	47
GENERAL MANAGERS AND TOP EXECUTIVES	90	1.99	22
ALL OTHER MANAGERS AND ADMINISTRATORS	70	1.55	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	280	6.18	N/A
ALL OTHER FINANCIAL SPECIALISTS	40	0.88	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	20	0.44	42
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.22	N/A
ALL OTHER ENGINEERS	80	1.77	N/A
DRAFTERS	10	0.22	47
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.22	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	10	0.22	40
ALL OTHER PHYSICAL SCIENTISTS	10	0.22	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.22	47
COMPUTER PROGRAMMERS	10	0.22	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.22	N/A
OPTICIANS, DISPENSING AND MEASURING	30	0.66	50
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	10	0.22	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	30	0.66	N/A
SALES AND RELATED OCCUPATIONS	80	1.77	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	20	0.44	N/A
ALL OTHER SALES AND RELATED WORKERS	60	1.32	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	650	14.35	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.22	40
SECRETARIES	80	1.77	19
TYPISTS	20	0.44	44
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.22	25
FILE CLERKS	10	0.22	24
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	50	1.10	18
PROCUREMENT CLERKS	20	0.44	7
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	50	1.10	20
BILLING, COST AND RATE CLERKS	40	0.88	30
GENERAL OFFICE CLERKS	70	1.55	29
BILLING, POSTING, CALCULATING MACH. OPERATORS	30	0.66	8
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.22	23
SWITCHBOARD OPERATORS	20	0.44	21
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	120	2.65	5

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# OPHTHALMIC GOODS
SIC = 385
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	70	1.55	35
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	40	0.88	N/A
SERVICE OCCUPATIONS	60	1.32	N/A
GUARDS AND WATCH GUARDS	20	0.44	40
JANITORS, CLEANERS, EXCEPT MAIDS, HOUSE CLEANERS	40	0.88	20
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.22	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,210	70.86	N/A
SUPERVISORS-CONSTRUCTION & EXTRACTIVE WORKERS	10	0.22	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	90	1.99	29
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	30	0.66	N/A
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS	90	1.99	17
ALL OTHER INSPECTORS, TESTERS & OTHER RELATED	90	1.99	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	0.66	41
ELECTRICIANS	10	0.22	24
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	10	0.22	N/A
TOOL AND DIE MAKERS	80	1.77	23
MACHINISTS	60	1.32	50
SHEET METAL WORKERS	10	0.22	38
PRECISION OPTICAL GOODS WORKERS	140	3.09	39
ELECTROLYTIC PLATING, COATING MACH OPERATORS	20	0.44	48
ALL OTHER METAL & PLASTIC SETTER, SET-UP OPER.	160	3.53	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	350	7.73	N/A
CHEMICAL EQUIPMENT CONTROLLERS AND OPERATORS	80	1.77	N/A
CRUSHING, GRINDING, MIXING MACH OPER & TENDERS	10	0.22	34
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	60	1.32	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	40	0.88	N/A
SOLDERERS AND BRAZERS	100	2.21	N/A
GRINDING & POLISHING WORKERS, HAND	80	1.77	8
ASSEMB.& FABR.-EXCEPT ELEC, ELECTRONIC, PRECIS.	1,570	34.66	12
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.22	34
ALL OTHER FREIGHT, STOCK, MATERIAL MOVERS, HAND	60	1.32	N/A
ALL OTHER HELPERS, LABORERS, MAT'L MOVERS HAND	30	0.66	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PHOTO EQUIPMENT & SUPPLIES
SIC = 386
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	11,420	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,030	9.02	N/A
FINANCIAL MANAGERS	80	0.70	7
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	50	0.44	8
PURCHASING MANAGERS	10	0.09	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	100	0.88	12
ADMINISTRATIVE SERVICES MANAGERS	30	0.26	23
INDUSTRIAL PRODUCTION MANAGERS	60	0.53	7
GENERAL MANAGERS AND TOP EXECUTIVES	130	1.14	14
ALL OTHER MANAGERS AND ADMINISTRATORS	570	4.99	6
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	3,800	33.27	N/A
ACCOUNTANTS AND AUDITORS	10	0.09	41
BUDGET ANALYSTS	150	1.31	5
ALL OTHER FINANCIAL SPECIALISTS	10	0.09	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	90	0.79	6
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	120	1.05	5
COST ESTIMATORS	10	0.09	32
ALL OTHER MANAGEMENT SUPPORT WORKERS	200	1.75	7
ELECTRICAL AND ELECTRONIC ENGINEERS	130	1.14	32
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	10	0.09	14
MECHANICAL ENGINEERS	90	0.79	36
ALL OTHER ENGINEERS	890	7.79	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	220	1.93	7
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	1,000	8.76	5
DRAFTERS	250	2.19	5
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	50	0.44	N/A
PHYSICISTS AND ASTRONOMERS	10	0.09	40
ALL OTHER PHYSICAL SCIENTISTS	210	1.84	8
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	10	0.09	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	90	0.79	4
COMPUTER PROGRAMMERS	50	0.44	15
OPTICIANS, DISPENSING AND MEASURING	20	0.18	41
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	20	0.18	6
WRITERS AND EDITORS	10	0.09	10
TECHNICAL WRITERS	10	0.09	22
DESIGNERS, EXCEPT INTERIOR DESIGNERS	110	0.96	4
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	70	0.61	13
SALES AND RELATED OCCUPATIONS	90	0.79	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	60	0.53	46

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PHOTO EQUIPMENT & SUPPLIES
SIC = 386
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	30	0.26	40
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,440	12.61	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	30	0.26	4
SECRETARIES	600	5.25	3
TYPISTS	10	0.09	29
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	50	0.44	10
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	90	0.79	8
GENERAL OFFICE CLERKS	140	1.23	3
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	40	0.35	12
PERIPHERAL EDP EQUIPMENT OPERATORS	10	0.09	N/A
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.18	12
SWITCHBOARD OPERATORS	20	0.18	12
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	170	1.49	6
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	220	1.93	6
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	20	0.18	21
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	30	0.26	N/A
SERVICE OCCUPATIONS	290	2.54	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.09	43
GUARDS AND WATCH GUARDS	160	1.40	3
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	120	1.05	6
ALL OTHER SERVICE WORKERS	**	0.00	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	4,770	41.77	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	520	4.55	5
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	40	0.35	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	10	0.09	30
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	740	6.48	7
MACHINERY MAINTENANCE MECHANICS	10	0.09	37
MACHINERY MAINTENANCE WORKERS	10	0.09	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	370	3.24	6
PRECISION INSTRUMENT REPAIRERS	50	0.44	20
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	60	0.53	N/A
CARPENTERS	30	0.26	4
ELECTRICIANS	180	1.58	5
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	10	0.09	N/A
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	70	0.61	5
ALL OTHER CONSTRUCTION TRADES WORKERS	20	0.18	28
TOOL AND DIE MAKERS	40	0.35	N/A
MACHINISTS	110	0.96	12
SHEET METAL WORKERS	30	0.26	4
PRECISION WOODWORKERS	70	0.61	12

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# PHOTO EQUIPMENT & SUPPLIES
SIC = 386
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER PRECISION WORKERS	10	0.09	N/A
NONELECTROLYTIC PLATING,COATING MACH OPERATOR	50	0.44	9
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	10	0.09	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	10	0.09	N/A
CHEMICAL EQUIPMENT CONTROLLERS AND OPERATORS	200	1.75	16
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	200	1.75	19
ALL OTHER MACHINE OPERATORS AND TENDERS	1,570	13.75	N/A
ELEC.& ELECTRONIC EQUIP ASSEMBLER - PRECISION	20	0.18	43
ALL OTHER PRECISION ASSEMBLERS, EXCEPT METAL	10	0.09	N/A
ALL OTHER HAND WORKERS	130	1.14	16
STATIONARY ENGINEERS	20	0.18	25
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.09	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	50	0.44	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	120	1.05	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
WATCHES, CLOCKS AND WATCHCASES
SIC = 387
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,010	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	50	4.95	N/A
FINANCIAL MANAGERS	10	0.99	20
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.99	29
PURCHASING MANAGERS	10	0.99	20
INDUSTRIAL PRODUCTION MANAGERS	10	0.99	29
GENERAL MANAGERS AND TOP EXECUTIVES	20	1.98	40
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.99	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	60	5.94	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.99	20
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.99	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	10	0.99	11
MECHANICAL ENGINEERS	20	1.98	21
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	10	0.99	25
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	10	0.99	N/A
SALES AND RELATED OCCUPATIONS	30	2.97	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	20	1.98	45
ALL OTHER SALES AND RELATED WORKERS	10	0.99	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	110	10.89	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	20	1.98	45
SECRETARIES	20	1.98	25
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	10	0.99	46
PAYROLL AND TIMEKEEPING CLERKS	10	0.99	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.99	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.99	27
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	20	1.98	22
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	1.98	N/A
SERVICE OCCUPATIONS	20	1.98	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	10	0.99	9
ALL OTHER SERVICE WORKERS	10	0.99	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	740	73.27	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	20	1.98	21
PRECISION INSPECTORS, TESTERS, AND GRADERS	10	0.99	29
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	50	4.95	17
MACHINERY MAINTENANCE MECHANICS	30	2.97	28
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.99	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.99	11
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	10	0.99	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.99	N/A
TOOL AND DIE MAKERS	30	2.97	14

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# WATCHES, CLOCKS AND WATCHCASES
SIC = 387
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
MACHINISTS	10	0.99	38
ALL OTHER PRECISION METAL WORKERS	10	0.99	N/A
LATHE,TURNING MACH TOOL SETTERS, SET-UP OPER.	20	1.98	42
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	20	1.98	N/A
MACH FORMING OPER & TENDERS, METAL & PLASTIC	10	0.99	43
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	50	4.95	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	10	0.99	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	10	0.99	N/A
WATCH,CLOCK,CHRONOMETER ASSEMB,ADJUST.,CALIB.	170	16.83	46
ALL OTHER PRECISION ASSEMBLERS, METAL	40	3.96	N/A
ALL OTHER PRECISION ASSEMBLERS, EXCEPT METAL	100	9.90	N/A
PAINTING, COATING & DECORATING WORKERS- HAND	20	1.98	36
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	20	1.98	13
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	20	1.98	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	20	1.98	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	20	1.98	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

SIC 39

This industry group includes establishments primarily engaged in manufacturing products not classified in any other manufacturing group. This means that many of these industry are too diverse, making comparisons between industries difficult and of questionable value. Analyzing the occupational data at the group level is likewise of questionable value.

This industry group had employment of 26,600 in 1980 and fell to 22,400 in 1983, a decline of 4,200 jobs representing -15.8 percent. This employment decline stands in marked contrast to the percentage growth, though slight, of +0.9 for the durables manufacturing sector as a whole. There were 2,500 jobs lost between 1981 and 1982 which represents nearly 60 percent of the total three year job loss. This industry group accounted for 3.9 percent of manufacturing employment in 1980 but this percentage has been falling steadily and was 3.5 percent of manufacturing employment in 1983.

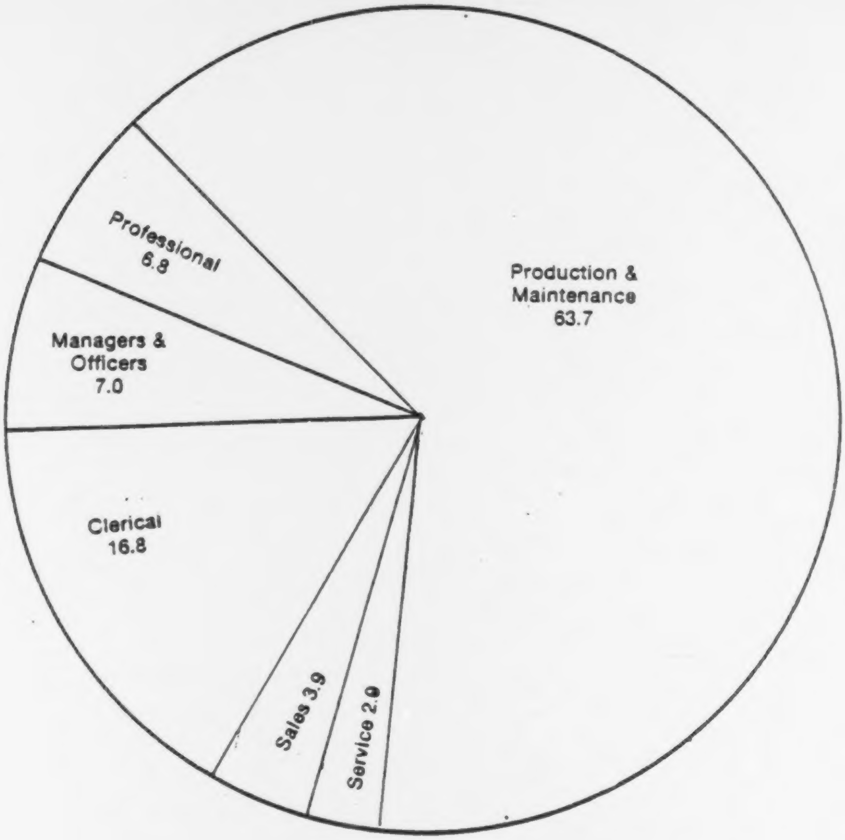
PERCENT OF OCCUPATIONAL DISTRIBUTION
1983 OES SURVEY
BY STANDARD INDUSTRIAL CLASSIFICATION

	39	391	396	399
TOTAL	100%	100%	100%	100%
Managerial & Administrative Occs.	7.01	7.68	5.71	5.86
Profess., Paraprofess., Tech. Occs.	6.74	5.35	4.76	4.95
Sales and Related Occs.	3.85	3.90	3.81	4.28
Clerical & Admin. Support Occs.	16,74	21.27	16.19	10.14
Service	2.04	2.78	1.90	1.35
Prod., Constr., and Maint., Occs.	63.57	59.02	67.62	73.42

The occupations within this industry group are largely concentrated within the Production, Construction and Maintenance occupations with nearly 65 percent of all occupations in this occupational grouping in 1983.

MISC. MANUFACTURING INDUSTRIES (SIC 39)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	All Other Metal and Plastic Machine Operators and Tenders	1,880
2.	Assemblers and Fabricators except Machine, Electrical, Electronic and Precision	1,850
3.	All Other Helpers, Laborers, and Material Movers, Hand	1,450
4.	All Other Hand Workers	1,250
5.	All Other Precision Metal Workers	960
6.	Supervisor-Production and Operating Workers	790
7.	All Other Machine Operators and Tenders	730
8.	General Managers and Top Executives	740
9.	All Other Sales and Related Workers	720
10.	Traffic, Shipping, and Receiving Clerks	590

These 10 occupational categories make up 49.8% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
MISC. MANUFACTURING INDUSTRIES
SIC = 39
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	22,100	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,550	7.01	N/A
FINANCIAL MANAGERS	150	0.68	26
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	60	0.27	25
PURCHASING MANAGERS	50	0.23	23
GENERAL MANAGERS AND TOP EXECUTIVES	740	3.35	21
ALL OTHER MANAGERS AND ADMINISTRATORS	550	2.49	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	1,490	6.74	N/A
ACCOUNTANTS AND AUDITORS	140	0.63	29
ALL OTHER FINANCIAL SPECIALISTS	50	0.23	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	110	0.50	19
COST ESTIMATORS	30	0.14	35
ALL OTHER MANAGEMENT SUPPORT WORKERS	100	0.45	N/A
ALL OTHER ENGINEERS	220	1.00	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	230	1.04	N/A
COMPUTER PROGRAMMERS	80	0.36	25
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	530	2.40	N/A
SALES AND RELATED OCCUPATIONS	850	3.85	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	130	0.59	34
ALL OTHER SALES AND RELATED WORKERS	720	3.26	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	3,700	16.74	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	130	0.59	29
SECRETARIES	560	2.53	12
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	40	0.18	34
FILE CLERKS	90	0.41	30
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	280	1.27	28
PROCUREMENT CLERKS	40	0.18	33
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	350	1.58	19
GENERAL OFFICE CLERKS	390	1.76	24
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	80	0.36	27
DATA ENTRY KEYERS, EXCEPT COMPOSING	160	0.72	33
ALL OTHER OFFICE MACHINE OPERATORS	50	0.23	N/A
SWITCHBOARD OPERATORS	40	0.18	32
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	200	0.90	21
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	160	0.72	26
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	590	2.67	21
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	130	0.59	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	410	1.86	N/A
SERVICE OCCUPATIONS	450	2.04	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	250	1.13	12

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISC. MANUFACTURING INDUSTRIES
SIC = 39
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	200	0.90	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	14,050	63.57	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	790	3.57	14
PRECISION INSPECTORS, TESTERS, AND GRADERS	70	0.32	28
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	440	1.99	24
MACHINERY MAINTENANCE MECHANICS	90	0.41	34
MAINTENANCE REPAIRERS, GENERAL UTILITY	230	1.04	22
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	190	0.86	N/A
ELECTRICIANS	80	0.36	25
ALL OTHER CONSTRUCTION TRADES WORKERS	200	0.90	N/A
TOOL AND DIE MAKERS	190	0.86	23
MACHINISTS	160	0.72	29
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	70	0.32	32
ALL OTHER PRECISION METAL WORKERS	960	4.34	N/A
CABINETMAKERS AND BENCH CARPENTERS	270	1.22	36
ALL OTHER PRECISION PRINTING WORKERS	50	0.23	N/A
ALL OTHER PRECISION WORKERS	260	1.18	N/A
MACHINE TOOL CUTTING OPERATORS & TENDERS	380	1.72	35
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	260	1.18	33
PLAS MOLDING,CASTING MACH SETTERS,SET-UP OPER	140	0.63	31
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	530	2.40	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	1,880	8.51	N/A
SCREEN PRINTING MACHINE SETTERS, SET-UP OPER	80	0.36	28
ALL OTHER PRINT RELATED SETTERS & SET-UP OPER	80	0.36	N/A
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	220	1.00	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	780	3.53	N/A
ELECTRICAL & ELECTRONIC ASSEMBLERS	10	0.05	N/A
PAINTING, COATING & DECORATING WORKERS- HAND	370	1.67	36
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	1,850	8.37	31
ALL OTHER HAND WORKERS	1,250	5.66	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	30	0.14	32
ALL OTHER MOTOR VEHICLE OPERATORS	20	0.09	N/A
ALL OTHER TRANSPORTATION AND RELATED WORKERS	10	0.05	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	160	0.72	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	460	2.08	24
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	1,490	6.74	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE

OCCUPATIONS OF EMPLOYEES

JEWELRY, SILVER & PLATED WARE

SIC = 391

REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	8,980	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	690	7.68	N/A
FINANCIAL MANAGERS	80	0.89	27
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.22	34
PURCHASING MANAGERS	20	0.22	29
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	90	1.00	30
GENERAL MANAGERS AND TOP EXECUTIVES	230	2.56	34
ALL OTHER MANAGERS AND ADMINISTRATORS	250	2.78	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	480	5.35	N/A
ACCOUNTANTS AND AUDITORS	40	0.45	37
ALL OTHER FINANCIAL SPECIALISTS	40	0.45	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	20	0.22	43
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	30	0.33	37
COST ESTIMATORS	20	0.22	42
ALL OTHER MANAGEMENT SUPPORT WORKERS	40	0.45	N/A
ALL OTHER ENGINEERS	50	0.56	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	50	0.56	N/A
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	10	0.11	N/A
COMPUTER PROGRAMMERS	40	0.45	35
ALL OTHER MATHEMATICAL SCIENTISTS	50	0.56	N/A
ALL OTHER HEALTH DIAGNOSING & TREATING PRACT.	10	0.11	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	90	1.00	N/A
SALES AND RELATED OCCUPATIONS	350	3.90	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	30	0.33	N/A
ALL OTHER SALES AND RELATED WORKERS	320	3.56	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,910	21.27	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	90	1.00	30
SECRETARIES	210	2.34	16
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	20	0.22	39
FILE CLERKS	60	0.67	42
PROCUREMENT CLERKS	30	0.33	43
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	160	1.78	33
BILLING, COST AND RATE CLERKS	50	0.56	45
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	30	0.33	43
DATA ENTRY KEYERS, EXCEPT COMPOSING	110	1.22	44
ALL OTHER OFFICE MACHINE OPERATORS	40	0.45	N/A
SWITCHBOARD OPERATORS	20	0.22	33
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	170	1.89	22
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	130	1.45	30
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	280	3.12	23

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
JEWELRY, SILVER & PLATED WARE
SIC = 391
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	130	1.45	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	380	4.23	N/A
SERVICE OCCUPATIONS	250	2.78	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	10	0.11	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	110	1.22	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	120	1.34	19
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	20	0.22	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	5,300	59.02	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	250	2.78	34
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	50	0.56	N/A
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	260	2.90	22
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	10	0.11	N/A
ALL OTHER MACHINERY MAINTENANCE MECHANICS	30	0.33	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	70	0.78	48
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	10	0.11	N/A
ELECTRICIANS	30	0.33	50
ALL OTHER CONSTRUCTION TRADES WORKERS	50	0.56	N/A
TOOL AND DIE MAKERS	170	1.89	23
PRECISION ETCHERS & ENGRAVERS, HAND, MACHINE	60	0.67	41
SHEET METAL WORKERS	10	0.11	32
ALL OTHER PRECISION METAL WORKERS	490	5.46	N/A
ALL OTHER PRECISION WOODWORKERS	10	0.11	N/A
ALL OTHER PRECISION PRINTING WORKERS	20	0.22	N/A
ALL OTHER PRECISION WORKERS	150	1.67	N/A
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	120	1.34	46
PLASTIC MOLDING CASTING MACHINE OPER, TENDERS	20	0.22	16
METAL MOLDING & CASTING MACH OPERATOR,TENDER	40	0.45	42
NONELECTROLYTIC PLATING,COATING MACH OPERATOR	50	0.56	29
HEATING EQUIPMENT SETTERS & SET-UP OPERATORS	30	0.33	27
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	650	7.24	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	530	5.90	N/A
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	100	1.11	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	10	0.11	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	140	1.56	N/A
ENGRAVING & PRINTING WORKERS, HAND	120	1.34	40
GRINDING & POLISHING WORKERS, HAND	510	5.68	50
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	260	2.90	40
ALL OTHER HAND WORKERS	370	4.12	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	10	0.11	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	20	0.22	48

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
JEWELRY, SILVER & PLATED WARE
SIC = 391
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.11	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	10	0.11	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	140	1.56	N/A
HAND PACKERS AND PACKAGERS	360	4.01	49
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	140	1.56	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
COSTUME JEWELRY AND NOTIONS
SIC = 396
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,050	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	60	5.71	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.95	N/A
INDUSTRIAL PRODUCTION MANAGERS	10	0.95	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	30	2.86	6
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.95	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	50	4.76	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.95	N/A
ALL OTHER ENGINEERS	10	0.95	N/A
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	10	0.95	N/A
DRAFTERS	10	0.95	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.95	N/A
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.95	N/A
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.95	N/A
SALES AND RELATED OCCUPATIONS	40	3.81	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	10	0.95	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	30	2.86	17
ALL OTHER SALES AND RELATED WORKERS	10	0.95	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	170	16.19	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.95	N/A
SECRETARIES	20	1.90	6
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	20	1.90	7
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	20	1.90	7
PAYROLL AND TIMEKEEPING CLERKS	10	0.95	N/A
BILLING, COST AND RATE CLERKS	10	0.95	N/A
GENERAL OFFICE CLERKS	30	2.86	3
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.95	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.95	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.95	N/A
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	20	1.90	N/A
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.95	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.95	N/A
SERVICE OCCUPATIONS	20	1.90	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	20	1.90	N/A
ALL OTHER SERVICE WORKERS	10	0.95	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	710	67.62	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	40	3.81	5
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.95	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# COSTUME JEWELRY AND NOTIONS
SIC = 396
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRECISION INSPECTORS, TESTERS, AND GRADERS	20	1.90	10
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	10	0.95	N/A
MACHINERY MAINTENANCE MECHANICS	10	0.95	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.95	11
TOOL AND DIE MAKERS	10	0.95	N/A
MACHINISTS	70	6.67	N/A
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	30	2.86	7
PRECISION HAND WORKERS, JEWELRY RELATED PRODS	90	8.57	8
ALL OTHER PRECISION METAL WORKERS	10	0.95	N/A
PRECISION DETAIL DESIGN DECORATORS & PAINTERS	10	0.95	38
ALL OTHER PRECISION WORKERS	10	0.95	N/A
GRIND,LAP,BUFF MACH TOOL SETTERS&SET-UP OPER.	10	0.95	26
MACHINE TOOL CUTTING OPERATORS & TENDERS	10	0.95	27
PUNCHING MACHINE SETTERS & SET-UP OPERATORS	30	2.86	14
ROLL MACH SETTER & SET-UP OPER. METAL PLASTIC	10	0.95	N/A
PLAS MOLDING,CASTING MACH SETTERS,SET-UP OPER	10	0.95	N/A
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	40	3.81	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	10	0.95	N/A
SEWING MACHINE OPERATORS, GARMENT	10	0.95	N/A
COATING,PAINTING,SPRAYING MACH OPER & TENDERS	10	0.95	N/A
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	10	0.95	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	10	0.95	N/A
ELECTRICAL & ELECTRONIC ASSEMBLERS	10	0.95	N/A
SOLDERERS AND BRAZERS	30	2.86	22
PAINTING, COATING & DECORATING WORKERS- HAND	40	3.81	14
ENGRAVING & PRINTING WORKERS, HAND	10	0.95	N/A
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	60	5.71	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	10	0.95	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	10	0.95	14
HAND PACKERS AND PACKAGERS	40	3.81	8
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	50	4.76	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS MANUFACTURING
SIC = 399
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,440	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	260	5.86	N/A
FINANCIAL MANAGERS	10	0.23	27
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.23	27
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.23	28
INDUSTRIAL PRODUCTION MANAGERS	20	0.45	6
GENERAL MANAGERS AND TOP EXECUTIVES	200	4.50	12
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.23	N/A
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	220	4.95	N/A
ACCOUNTANTS AND AUDITORS	30	0.68	21
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	30	0.68	14
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.23	N/A
MECHANICAL ENGINEERS	10	0.23	24
DRAFTERS	30	0.68	27
COMPUTER PROGRAMMERS	10	0.23	35
COMPUTER PROGRAMMER AIDES	10	0.23	20
DESIGNERS, EXCEPT INTERIOR DESIGNERS	70	1.58	27
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	10	0.23	N/A
SALES AND RELATED OCCUPATIONS	190	4.28	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	10	0.23	19
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	60	1.35	34
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	100	2.25	22
ALL OTHER SALES AND RELATED WORKERS	20	0.45	13
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	450	10.14	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.23	25
SECRETARIES	110	2.48	14
TYPISTS	20	0.45	31
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	50	1.13	22
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	90	2.03	18
PAYROLL AND TIMEKEEPING CLERKS	10	0.23	28
GENERAL OFFICE CLERKS	70	1.58	24
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.23	32
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	70	1.58	22
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.23	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	30	0.68	N/A
SERVICE OCCUPATIONS	60	1.35	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	**	0.00	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	50	1.13	13

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS MANUFACTURING
SIC = 399
REFERENCE DATE MAY, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,260	73.42	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	230	5.18	21
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.23	N/A
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	20	0.45	32
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	30	0.68	N/A
MACHINERY MAINTENANCE MECHANICS	10	0.23	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	90	2.03	27
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	10	0.23	N/A
ELECTRICIANS	20	0.45	28
ALL OTHER CONSTRUCTION TRADES WORKERS	20	0.45	N/A
MACHINISTS	10	0.23	11
ALL OTHER PRECISION METAL WORKERS	230	5.18	N/A
CABINETMAKERS AND BENCH CARPENTERS	200	4.50	29
ALL OTHER PRECISION WOODWORKERS	30	0.68	N/A
ALL OTHER PRECISION WORKERS	60	1.35	N/A
PLASTIC MOLDING CASTING MACHINE OPER, TENDERS	80	1.80	28
ALL OTHER METAL & PLASTIC SETTER,SET-UP OPER.	210	4.73	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	420	9.46	N/A
SCREEN PRINTING MACHINE SETTERS, SET-UP OPER	70	1.58	30
PRINTING PRESS MACHINE OPERATORS AND TENDERS	20	0.45	11
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	10	0.23	24
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	90	2.03	30
ALL OTHER MACHINE OPERATORS AND TENDERS	190	4.28	N/A
PAINTING, COATING & DECORATING WORKERS- HAND	80	1.80	29
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	490	11.04	N/A
ALL OTHER HAND WORKERS	160	3.60	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.23	35
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.23	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	40	0.90	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	60	1.35	19
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	70	1.58	N/A
HAND PACKERS AND PACKAGERS	290	6.53	27
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	10	0.23	N/A

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

THE MAJOR OCCUPATIONAL CATEGORIES USED IN THE OCCUPATIONAL EMPLOYMENT STATISTICS SURVEY

DESCRIPTION

MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS

Include in this division top and middle-level managers, administrators, and executives. Primary duties are policy making, planning, staffing, directing or controlling the activities of industrial, commercial, governmental or other establishments........Organization of this section - Occupations in this section are ordered functionally as follows: Staff and administrative managerial; industry specific managerial; and a residual 'All Other' category........Special instructions - Exclude first-line supervisors and managers with first-line duties. These workers, if professional, paraprofessional or technical, should be reported with the workers they supervise. All other supervisors and manager/supervisors should be reported in separate categories provided in each division. Exclude owners and partners of unincorporated firms. Include only managers and administrators who are exempt from the minimum wage and overtime provision of the Fair Labor Standards Act.

PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL OCCUPATIONS

Include in this division persons concerned with the theoretical or practical aspects of such fields as science, art, education, law and business relations where substantial post-secondary educational preparation, or equivalent on-the-job training or experience is required........Organization of this section are ordered functionally as follows: General management support; engineering and scientific; data processing and mathematical; social science, law and related; teaching and related; medicine and health; writing, art and related; and a residual 'All Other' category........Special instructions - Quality Control Workers should be reported according to the nature of the quality control process (i.e. chemical, mechanical, biological). Thus, an Engineer engaged in quality control work of a chemical nature should be reported as a Chemical Engineer........Unlike the other divisions of this form, first-line supervisors and managers with first-line duties should be reported along with the workers they supervise.

SALES AND RELATED OCCUPATIONS

Include in this division persons selling goods or services and others directly related to sales........Organization of this section - Occupations in this section are ordered functionally as follows: Supervising; sales of services; commodity sales; and a residual 'All Other' category........Special instructions - Managers of smaller establishments who typically have first-line supervisory duties and engage in the same activities as the workers they supervise should be reported in the First Line Supervisors and Manager/Supervisors occupation.

CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS

Include in this division persons performing office and plant clerical tasks, such as typing, filing, computer operating, records keeping (personnel, stock, production, billing, etc.); and mail preparation and distributing........ Organization of this section - Occupations in this section are ordered functionally as follows: Supervising; unique and industry specific (occupations); secretarial and general office; office machine operating; communications and mail distributing; material recording and other production related; and a residual 'All Other' category.

SERVICE OCCUPATIONS

Include in this division workers in occupations relating to protective service, food service, health assisting service, cleaning and building service, and personal service........Organization of this section - Occupations in this section are ordered functionally as follows: Supervising; protective services; food services; health; cleaning; personal services; and a residual 'All Other' category.

AGRICULTURAL, FORESTRY, FISHING, AND RELATED OCCUPATIONS

Include in this Division workers concerned with agricultural production, forestry, and fishing. Also included in this division are agriculture related workers such as animal caretakers and groundskeepers........Organization of this section - Occupations in this section are ordered functionally as follows: Supervising; forestry; and a residual 'All Other' category that covers fishing and agricultural production........Special instructions - Machine and manual occupations that are found in, but not unique to, the forestry industry are found in the next Division.

PRODUCTION, CONSTRUCTION, OPERATING, MAINTENANCE, AND MATERIAL HANDLING OCCUPATIONS

Include in this Division all skilled, semiskilled, and unskilled workers performing machine and manual tasks involving production, construction, operating, maintenance, repair, and material handling operations........Organization of this section - Occupations in this section are ordered functionally as follows: Supervising; inspecting; repair; construction; precision production; machine setting, operating, and tending; assembling and hand working; plant and system operation; transportation and material moving equipment operating; and helpers, laboring, and manual material moving........Special instructions - Because of the differing experience and training required, production workers performing precision tasks (whether hand or machine) are reported separately. In addition, the remaining production worker groups are divided between machine and manual operations. The use of hand held power tools is considered a manual operation for the purpose of this survey.

-S3808-2.3-U

COMMONWEALTH OF MASSACHUSETTS

Division of Employment Security

Michael S. Dukakis, Governor
Evelyn F. Murphy, Secretary, Economic Affairs
Kristin S. Demong, Director, DES

AN OCCUPATIONAL PROFILE
OF
HOSPITAL EMPLOYMENT
IN
MASSACHUSETTS
1983

Prepared By:
Massachusetts Division
of Employment Security
Economic Research &
Analysis Service
Occupational Employment
Statistics Unit
Elliot Winer
Program Manager
May, 1985

FOREWORD

The Occupational Employment Statistics Program is part of a Federal-State cooperative program involving State Employment Security Agencies (SESA's) as well as the Employment and Training Administration (ETA) and the Bureau of Labor Statistics (BLS). It was designed to meet the needs of economists, employment specialists, educators, counselors and others for current data on employment by occupation and industry.

This publication is the twentieth in a series on Current Occupational Profiles of Massachusetts Industries. The information is used in updating the industry-occupation matrix and as a data base for projecting future employment trends. Copies of all previous survey publications are available for reference in our Research Liabrary.

Our sincere appreciation is extended to the many hospitals who participated in this survey, without whose support this labor market information would not be available, and to the Massachusetts Hospital Association for their endorsement. Acknowledgement for support is also made to the U. S. Department of Labor and in particular to the Bureau of Labor Statistics - both on national and regional levels - for their technical support. We also wish to recognize the contribution of the data processing department, the clerical unit, the reproduction unit and methods and procedures.

HOSPITAL INDUSTRY
(excluding Federal Facilities)

The hospital industry, with April 1983 employment of over 146,000 is one of the largest sectors of the Massachusetts economy. Since our last survey in April 1980 employment has grown by 6.5 percent and is projected to reach nearly 185,000 by 1990. 1/

Of the 187 hospitals (excluding Federal Facilities), 151 are under private ownership and employ nearly 81,000 or 55.5 percent of hospital employment. The average facility employs 770 workers, while 47 hospitals employ over 1,000 workers with an average employment level of 1,895.

The occupational mix of hospital employment is dominated by the professional category, accounting for more than 50 percent of total employment. Within this category, Registered Nurses at 34,840, and Licensed Practical Nurses at 9,380, represent 30 percent of total employment. The next single largest occupation is Physicians and Surgeons with employment at 5,550 or slightly less than four percent. Included within this same professional and technical occupational category are the highly skilled technical occupations that play a large role in hospital care.

While the professional and technical category is the single largest occupational group, the clerical, service and production and maintenance categories coupled together, represent nearly 44 percent of employment. The occupations range from highly skilled to nonskilled.

1/ Massachusetts Employment: Projected Changes 1980 to 1990.

Hospital Employment

The Massachusetts hospital industry is one of the leading employers in the state, employing nearly 146,000 workers in 1983. The national 1983 employment estimate was 4,390,500 workers. Over the four year period 1979-1983, 8,350 workers joined the state's hospital industry, an increase of 6.1 percent. Nationally, over the same time period, 449,300 new workers (11.4 percent) became employed in the hospital industry.

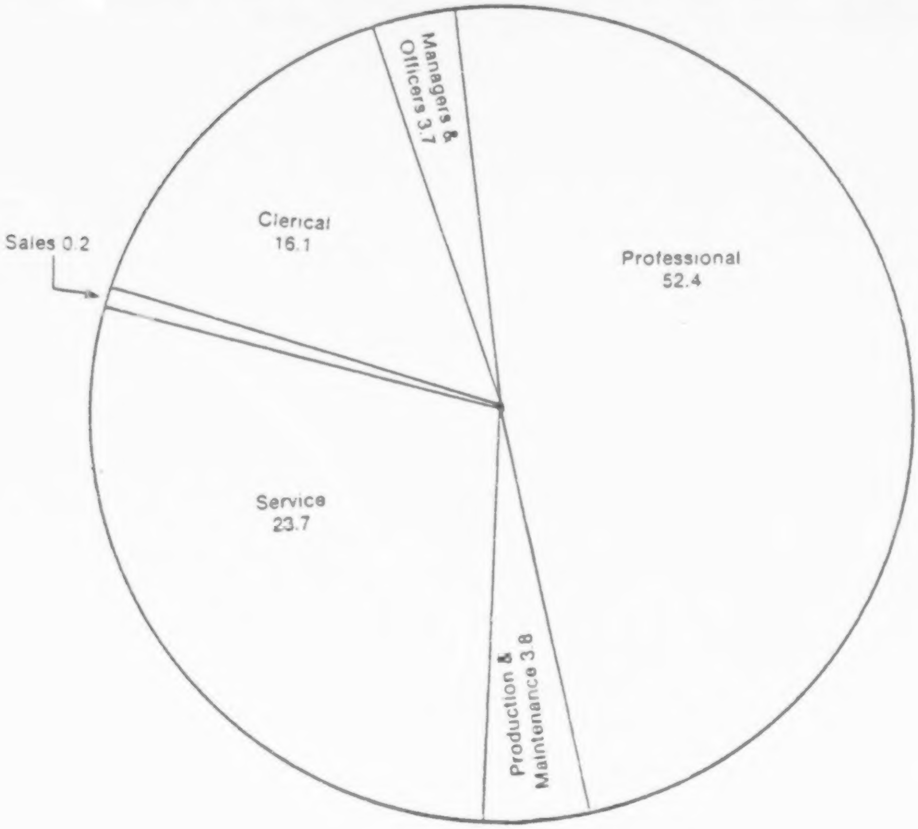
	Massachusetts		United States	
Year	Employment	Year to Year Change	Employment	Year to Year Change
1984	144,200	- 1.2%	4,324,500	- 1.5%
1983	145,900	- 0.7	4,390,500	0.3
1982	146,900	1.6	4,378,600	2.5
1981	144,640	3.2	4,273,200	3.8
1980	140,210	1.9	4,117,600	4.5
1979	137,550	--	3,941,200	--

In recent years, emphasis has been on "cost containment" for health care. In October 1981, a major health insurance provider implemented a restriction on costs for specific health services. Then in October 1982, the state mandated a cap on a hospital's budget allowance, which ultimately resulted in production cuts.

From a current perspective, 1984 shows a significant change for the hospital industry. In brief, legislation passed in April 1983 called for the Federal government to pay for inpatient hospital services not on a fee-for-service basis, as it had traditionally done, but on a fixed-fee basis. Clearly we can see from the employment estimates above, that the effect of this legislation has altered the past performance of the hospital industry. Is the 1984 employment decline solely a one time result of the 1983 legislation or a prediction of things to come? At present it is difficult to estimate the impact it will have on long term hospital employment. However, this is an indication that new incentive payment systems are an evident possibility for other payment providers.

HOSPITALS (SIC 806)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Registered Nurses	34,840
2.	Nursing Aides, Orderlies and Attendants	11,520
3.	Licensed Practical Nurses	9,380
4.	Physicians and Surgeons	5,550
5.	Maids and Housekeeping Cleaners	4,620
6.	All Other Secretaries	4,540
7.	Medical and Clinical Laboratory Technologists	3,800
8.	Food Preparation Workers	2,610
9.	All Other Health Professionals, Para-Professionals, and Technicians	2,470
10.	General Office Clerks	2,190

These 10 occupational categories make up 55.5% of total industry employment.

Table
THE OCCUPATIONS MOST FREQUENTLY REPORTED BY RESPONDING HOSPITALS

Occupation	Percent of Hospitals Reporting Occupations
Registered Nurses	99
Licensed Practical Nurses	98
General Managers & Top Executives	98
Cooks, Institution or Cafeteria	93
Switchboard Operator	91
Medical & Health Service Managers	90
Pharmacists	89
Nursing Aides, Orderlies, & Attendants	89
Financial Managers	85
Maids and Housekeeping Cleaners	84
Dieticians and Nutritionists	84
Social Workers, Medical	83
Stock Clerks, Stockroom and Related	83
Billing Cost and Rate Clerks	82
Housekeeping Supervisors	81
Food Preparation Workers	81
Typists	81
Personal and Labor Managers	80
Physical Therapists	78
Clerical & Administrative Supervisors	78
Payroll and Time Clerks	78
Respiratory Therapists	77
Medical & Clinical Laboratory Technologists	77
Medical Records Technicians	77
Bookkeeping, Accounting, and Accounting Clerks	76
Medical Secretaries	75
Secretaries (except Medical)	75

TABLE
OCCUPATIONS OF EMPLOYEES
HOSPITALS
SIC = 806
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	146,330	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	5,350	3.66	N/A
FINANCIAL MANAGERS	330	0.23	4
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	230	0.16	5
PURCHASING MANAGERS	140	0.10	4
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	130	0.09	6
ADMINISTRATIVE SERVICES MANAGERS	220	0.15	11
MEDICINE AND HEALTH SERVICES MANAGERS	1,500	1.03	7
FOOD SERVICE AND LODGING MANAGERS	140	0.10	5
GENERAL MANAGERS AND TOP EXECUTIVES	880	0.60	7
ALL OTHER MANAGERS AND ADMINISTRATORS	1,780	1.22	10
PROFESSIONAL PARAPROFESSIONAL TECH OCCUPATION	76,640	52.37	N/A
ACCOUNTANTS AND AUDITORS	380	0.26	6
BUDGET ANALYSTS	90	0.06	7
ALL OTHER FINANCIAL SPECIALISTS	130	0.09	19
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	130	0.09	5
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	220	0.15	5
COST ESTIMATORS	10	0.01	N/A
COMPLIANCE OFFICERS & ENFORCEMENT INSPECTORS	40	0.03	14
ALL OTHER MANAGEMENT SUPPORT WORKERS	600	0.41	13
CIVIL ENGINEERS, INCLUDING TRAFFIC	10	0.01	17
ELECTRICAL AND ELECTRONIC ENGINEERS	10	0.01	19
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	20	0.01	14
MECHANICAL ENGINEERS	80	0.05	23
ALL OTHER ENGINEERS	60	0.04	15
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	30	0.02	26
DRAFTERS	70	0.05	37
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	50	0.03	25
CHEMISTS, EXCEPT BIOCHEMISTS	10	0.01	22
BIOLOGICAL SCIENTISTS	210	0.14	21
MEDICAL SCIENTISTS	50	0.03	17
ALL OTHER LIFE SCIENTISTS	90	0.06	39
BIOLOGICAL,AGRIC,FOOD TECH,TECHNOL,EXC.HEALTH	180	0.12	48
CHEMICAL TECHNICIANS & TECHNOL.EXC. HEALTH	60	0.04	31
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	200	0.14	21
COMPUTER PROGRAMMERS	200	0.14	20
COMPUTER PROGRAMMER AIDES	110	0.08	14

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# HOSPITALS
SIC = 806
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
STATISTICIANS	10	0.01	20
PSYCHOLOGISTS	360	0.25	12
ALL OTHER SOCIAL SCIENTISTS	10	0.01	35
SOCIAL WORKERS, MEDICAL & PSYCHIATRIC	1,170	0.80	6
SOCIAL WORKERS, EXCEPT MEDICAL & PSYCHIATRIC	220	0.15	15
SOCIAL SERVICE TECHNICIANS	210	0.14	11
CLERGY	120	0.08	7
NURSING INSTRUCTORS	630	0.43	7
TEACHERS & INSTRUCTORS, VOC ED AND TRAINING	150	0.10	20
ALL OTHER TEACHERS AND INSTRUCTORS	240	0.16	14
LIBRARIANS, PROFESSIONAL	110	0.08	5
TECHNICAL ASSISTANTS, LIBRARY	40	0.03	13
PHYSICIANS AND SURGEONS	5,550	3.79	13
DENTISTS	30	0.02	10
OPTOMETRISTS	10	0.01	25
PODIATRISTS	20	0.01	17
RESPIRATORY THERAPISTS	1,570	1.07	4
OCCUPATIONAL THERAPISTS	500	0.34	9
PHYSICAL THERAPISTS	1,090	0.74	6
CORRECTIVE AND MANUAL ARTS THERAPISTS	10	0.01	50
SPEECH PATHOLOGISTS AND AUDIOLOGISTS	320	0.22	9
RECREATIONAL THERAPISTS	240	0.16	14
ALL OTHER THERAPISTS	90	0.06	23
REGISTERED NURSES	34,840	23.81	1
LICENSED PRACTICAL NURSES	9,380	6.41	4
EMERGENCY MEDICAL TECHNICIANS	300	0.21	28
PHYSICIAN'S ASSISTANTS	210	0.14	23
PHARMACISTS	860	0.59	3
DIETITIANS AND NUTRITIONISTS	540	0.37	3
DIETETIC TECHNICIANS	610	0.42	10
MEDICAL AND CLINICAL LABORATORY TECHNOLOGISTS	3,800	2.60	6
MEDICAL AND CLINICAL LABORATORY TECHNICIANS	2,020	1.38	6
DENTAL HYGIENISTS	20	0.01	15
MEDICAL RECORDS TECHNICIANS AND TECHNOLOGISTS	650	0.44	7
NUCLEAR MEDICINE TECHNOLOGISTS	250	0.17	4
RADIOLOGIC TECHNOLOGISTS	1,270	0.87	6
RADIOLOGIC TECHNICIANS	1,200	0.82	7
ELECTROENCEPHALOGRAPH TECHS. & TECHNOLOGISTS	180	0.12	5

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
HOSPITALS
SIC = 806
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ELECTROCARDIOGRAPH TECHNICIANS & TECHNOLOGIST	700	0.48	4
SURGICAL TECHNICIANS	850	0.58	4
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	2,470	1.69	12
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	80	0.05	7
PHOTOGRAPHERS	30	0.02	12
ALL OTHER PROFESSIONAL, PARAPROF., TECHNICAL	640	0.44	26
SALES AND RELATED OCCUPATIONS	330	0.23	N/A
CASHIERS	290	0.20	6
ALL OTHER SALES AND RELATED WORKERS	40	0.03	33
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	23,560	16.10	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	1,210	0.83	8
LIBRARY ASSISTANTS AND BOOKMOBILE DRIVERS	50	0.03	14
MEDICAL SECRETARIES	1,580	1.08	6
ALL OTHER SECRETARIES	4,540	3.10	5
STENOGRAPHERS	210	0.14	13
RECEPTIONIST AND INFORMATION CLERKS	1,130	0.77	8
TYPISTS	1,990	1.36	7
TYPISTS, WORD PROCESSING EQUIPMENT	50	0.03	17
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	210	0.14	5
FILE CLERKS	710	0.49	8
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	100	0.07	14
PROCUREMENT CLERKS	120	0.08	7
STATISTICAL CLERKS	140	0.10	12
INTERVIEW CLERKS,EXC PERSONNEL,SOCIAL WELFARE	1,280	0.87	7
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	1,010	0.69	13
PAYROLL AND TIMEKEEPING CLERKS	290	0.20	5
BILLING, COST AND RATE CLERKS	1,420	0.97	4
GENERAL OFFICE CLERKS	2,190	1.50	9
BILLING, POSTING, CALCULATING MACH. OPERATORS	90	0.06	19
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	170	0.12	8
PERIPHERAL EDP EQUIPMENT OPERATORS	20	0.01	29
DATA ENTRY KEYERS, EXCEPT COMPOSING	500	0.34	5
ALL OTHER OFFICE MACHINE OPERATORS	20	0.01	20
SWITCHBOARD OPERATORS	1,290	0.88	4
DISPATCHERS-POLICE, FIRE, AND AMBULANCE	30	0.02	34
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	720	0.49	4
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	100	0.07	7
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	240	0.16	17
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	2,150	1.47	8

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
HOSPITALS
SIC = 806
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SERVICE OCCUPATIONS	34,630	23.67	N/A
HOUSEKEEPERS	1,030	0.70	10
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	420	0.29	6
GUARDS AND WATCH GUARDS	1,180	0.81	5
WAITERS AND WAITRESSES	20	0.01	26
FOOD SERVERS, OUTSIDE	1,830	1.25	6
DINING ROOM, CAFETERIA ATTENDANTS, BAR HELPERS	660	0.45	7
COUNTER ATTENDANTS-LUNCHROOM, COFFEE SHOP, ETC	750	0.51	18
BAKERS, BREAD AND PASTRY	110	0.08	7
BUTCHERS AND MEAT CUTTERS	20	0.01	20
COOKS, INSTITUTION OR CAFETERIA	820	0.56	3
COOKS, SHORT ORDER	70	0.05	14
FOOD PREPARATION WORKERS	2,610	1.78	5
ALL OTHER FOOD SERVICE WORKERS	1,440	0.98	8
DENTAL ASSISTANTS	30	0.02	19
MEDICAL ASSISTANTS	370	0.25	13
NURSING AIDES, ORDERLIES, AND ATTENDANTS	11,520	7.87	6
HOME HEALTH AIDES	60	0.04	27
PSYCHIATRIC AIDES	1,370	0.94	18
PHYSICAL & CORRECTIVE THERAPY ASSISTANT, AIDES	350	0.24	7
OCCUPATIONAL THERAPY ASSISTANTS AND AIDES	210	0.14	12
AMBULANCE DRIVERS & ATTENDANTS, EXCEPT EMT.	20	0.01	26
PHARMACY ASSISTANTS	710	0.49	6
ALL OTHER HEALTH SERVICE WORKERS	1,350	0.92	15
MAIDS AND HOUSEKEEPING CLEANERS	4,620	3.16	4
JANITORS, CLEANERS, EXCEPT MAIDS, HOUSE CLEANERS	2,260	1.54	8
ELEVATOR OPERATORS	70	0.05	28
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	560	0.38	26
BARBERS	20	0.01	14
HAIRDRESSERS, HAIRSTYLISTS, & COSMETOLOGISTS	20	0.01	14
SOCIAL WELFARE SERVICE AIDES	10	0.01	40
CHILD CARE WORKERS	40	0.03	31
ALL OTHER SERVICE WORKERS	80	0.05	39
AGRICULTURAL, FORESTRY, FISHING, RELATED OCCUP	290	0.20	N/A
GARDENERS AND GROUNDSKEEPERS, EXCEPT FARM	270	0.18	8
ALL OTHER AGRIC, FOR, FISH, & RELATED WORKERS	20	0.01	48
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	5,530	3.78	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	140	0.10	11
SUPERVISORS-CONSTRUCTION & EXTRACTIVE WORKERS	60	0.04	21
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	130	0.09	17

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# HOSPITALS
SIC = 806
REFERENCE DATE APRIL, 1983

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
INSPECTORS AND RELATED OCCUPATIONS	20	0.01	33
MACHINERY MAINTENANCE MECHANICS	170	0.12	13
MAINTENANCE REPAIRERS, GENERAL UTILITY	640	0.44	5
HEATING, A/C & REFRIG MECHANICS & INSTALLERS	160	0.11	9
ELECTROMEDICAL,BIOMEDICAL EQUIPMENT REPAIRERS	120	0.08	15
MENDERS-GARMENTS, LINENS, AND RELATED	80	0.05	9
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	120	0.08	16
CARPENTERS	310	0.21	3
ELECTRICIANS	270	0.18	3
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	350	0.24	4
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	230	0.16	5
ALL OTHER CONSTRUCTION TRADES WORKERS	150	0.10	13
MACHINISTS	10	0.01	20
MEDICAL APPLIANCE MAKERS	50	0.03	24
ALL OTHER PRECISION WORKERS	240	0.16	N/A
SEWING MACHINE OPERATORS, NON-GARMENT	80	0.05	16
LAUNDRY,DRYCLEANING MACH OPER,TEND,EXC PRESS	490	0.33	8
PRESSING MACH OPER & TENDERS-TEXTILE, GARMENT	50	0.03	16
BOILER OPERATORS AND TENDERS, LOW PRESSURE	240	0.16	9
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	110	0.08	20
ALL OTHER MACHINE OPERATORS AND TENDERS	90	0.06	31
SEWERS, HAND	30	0.02	23
ALL OTHER HAND WORKERS	90	0.06	25
STATIONARY ENGINEERS	280	0.19	8
ALL OTHER PLANT AND SYSTEM OPERATORS	80	0.05	18
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	170	0.12	10
ALL OTHER MOTOR VEHICLE OPERATORS	90	0.06	13
ALL OTHER TRANSPORTATION AND RELATED WORKERS	60	0.04	22
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	30	0.02	35
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	10	0.01	24
HELPERS, LABORERS, AND MATERIAL MOVERS, HAND	380	0.26	20

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

For your convenience we are including Table 3 taken from our publication "Massachusetts Employment: Projected Changes 1980 to 1990".

This publication makes the following observation:

"During the 1980-1990 projection period, more than 20 percent of all new job openings in Massachusetts will occur in the health services industry. Of 36 professional and technical occupational categories analyzed in the health services field, only four show anticipated growth of less than 20 percent.

- Registered nurses, already the largest category in the health services industry, will add 14,500 new job openings during the projection period.

- Demand for therapists, radiologic technologists and laboratory technicians is expected to increase sharply, creating employment growth of approximately 30 percent in each of these broad categories."

PROJECTIONS
HEALTH RELATED OCCUPATIONS
1980 AND PROJECTED 1990

OCCUPATIONAL TITLE	EMPLOYMENT		CHANGE 1980 - 1990	
	1980 1/	1990 1/	ABSOLUTE	PERCENT 2/
MEDICAL WORKERS EX. TECHNICIANS	83,190	106,020	22,830	27.4
CHIROPRACTORS	390	540	150	38.5
DENTISTS	3,900	4,650	750	19.2
DIETITIANS &/OR NUTRITIONISTS	1,610	1,940	330	20.5
NURSES, PROFESSIONAL	48,250	62,730	14,480	30.0
OPTOMETRISTS	760	970	210	37.6
PHARMACISTS	4,260	4,650	390	9.2
PHYSICIANS &/OR SURGEONS	16,250	20,310	4,060	25.0
PODIATRISTS	380	510	130	34.2
THERAPISTS	6,780	8,860	2,080	30.7
OCCUPATIONAL THERAPISTS	770	1,130	360	46.8
MANUAL ARTS, MUSIC, REC. THERAP.	690	820	130	18.8
SPEECH & HEARING CLINICIANS ETC.	1,340	1,560	220	16.4
PHYSICAL THERAPISTS	1,720	2,370	650	37.8
RESPIRATORY THERAPISTS	1,610	2,100	490	30.4
ALL OTHER THERAPISTS	660	890	230	34.8
VETERINARIANS	630	850	220	34.9
OTHER HEALTH TECHNOLS. & TECHN.	41,010	51,520	10,510	25.6
CLINICAL LAB. TECHNOLS. & TECHN.	7,450	9,860	2,410	32.3
MEDICAL LAB. TECHNOLOGISTS	3,470	4,530	1,060	30.5
BIOCHEMISTRY TECHNOLOGISTS	470	630	160	34.0
MICROBIOLOGY TECHNOLOGISTS	370	480	110	29.7
CYTOTECHNOLOGISTS	160	230	70	43.8
HISTOLOGIC TECHNOLOGISTS	230	300	70	30.4
MEDICAL LAB. ASSISTANTS	1,880	2,500	620	33.0
BLOOD BANK TECH. SPECIALISTS	870	1,190	320	36.8
DENTAL HYGIENTISTS & ASSISTANTS	6,160	7,870	1,710	27.8
DENTAL ASSISTANTS	3,980	5,070	1,090	27.4
DENTAL HYGIENISTS	2,180	2,800	620	28.4
MEDICAL RECORD LIBRARIANS	430	540	110	25.6
RADIOLOGIC TECHNOLS., TECHN.	3,680	4,760	1,080	29.3
X-RAY TECHNICIANS	2,560	3,310	750	29.3
RADIATION THERAPY/NUC MED. TECH.	1,120	1,440	320	28.6
OTHER HEALTH TECHNOLS., TECHN.	23,280	28,500	5,220	22.4
SURGICAL TECHNICIANS	910	1,170	260	28.6
EKG TECHNICIANS	750	940	190	25.3
EEG TECHNICIANS	160	210	50	31.3
EMERGENCY MEDICAL TECHNICIANS	450	570	120	26.7
PHARMACY HELPERS	770	980	210	27.3
LICENSED PRACTICAL NURSES	16,800	20,200	3,400	20.2
DIETETIC TECHNICIANS	450	570	120	26.7
PHYSICAL THERAPY TECHNICIANS	710	880	170	23.9
ALL OTHER MED. & DENTAL TECHN.	2,280	2,980	700	30.7

1/ Summed parts may not equal totals because of rounding.
2/ Percentages calculated from rounded numbers.

APPENDIX

METHODOLOGY

The Sample

The second quarter 1983 report (ES 202) of employment and wages covered by the Massachusetts Employment Security Law was used as a sampling frame for the Occupational Employment Statistics survey of hospitals.

The sampling frame was stratified by three-digit SIC's Standard Industrial Classification) and by nine employment size classes. Establishments with less than four employees were excluded from the sample and all units with employment of two hundred and fifty or more were automatically included. All other establishments were subject to sample selection on a random basis, with the units in larger size classes having a proportionally higher chance of selection. Each unit was given a weight according to the proportion of hospitals selected in each size class. The sample included 175 hospitals with benchmark employment of 147,421.

The Survey and Responses

Each hospital was mailed a survey schedule; telephone calls and personal visits were made where the date was critical for calculating valid estimates. As many as three follow-up schedules were mailed to nonrespondents. Of the 175 hospitals in the survey, replies were received from 132 or 75.4 percent. After manual editing and mechanical (computer) screening, 128 responses with total employment of 109,438 were determined usable, 74.24 percent of sample employment.

The Estimating Procedure

All usable responses were stratified into seven size groups, by industry. Reported total employment (or the summed occupational employment) from each usable response was multiplied by the weight assigned during sample selection. These industry data were then divided into the employment in the ES-202 report for the reference month of the survey (stratified by corresponding size class cells). The result produced by the procedure is known as the benchmark factor. This factor was then applied to the occupation data, thus accounting for nonresponse. These occupational estimates were than summed across size classes to industry totals.

Sampling Error

Sampling error is an arithemetic measure of the precision of estimate. It is the difference between the estimate computed from the sample and the result that would have been obtained if the same methods were used to collect identical information from the universe. The relative errors listed in this report are the sampling errors of each occupation expressed as a percent of that occupational estimate. The relative errors shown are such that the chances are 2 out of 3 that the results of collecting identical information from the entire population would not differ by more than the percent of relative error shown; the chances are 19 out of 20, that the results of collecting identical information from the entire population would not differ by more than twice the percent shown. For example, it is estimated in this report that there are 9,380 Licensed Practical Nurses, making up 6.41 percent of total employment in the industry. Thus, the chances are about 68 out of 100 that the results of comparable full scale data collection would differ by less than 375 (4 percent) from the 9,380 estimated. Similarly, the estimated 6.41 percent of total employment would differ by less than .25 percent of total employment.

Nonsampling Error

The results of this survey are subject to biases and other nonsampling errors. Although careful editing and screening steps were taken, responding establishments may account for some errors in computations and processing, as well as placing workers in a wrong occupation. The nonrespondents are a source of nonsampling error for which measures are not available but are reflected in the estimating procedure.

This calendar gives you a quick check on how many years of education, after high school, you should count on for the representative health occupations listed here. The lines and symbols show what is customary—some people take only minimum required training; many take more.

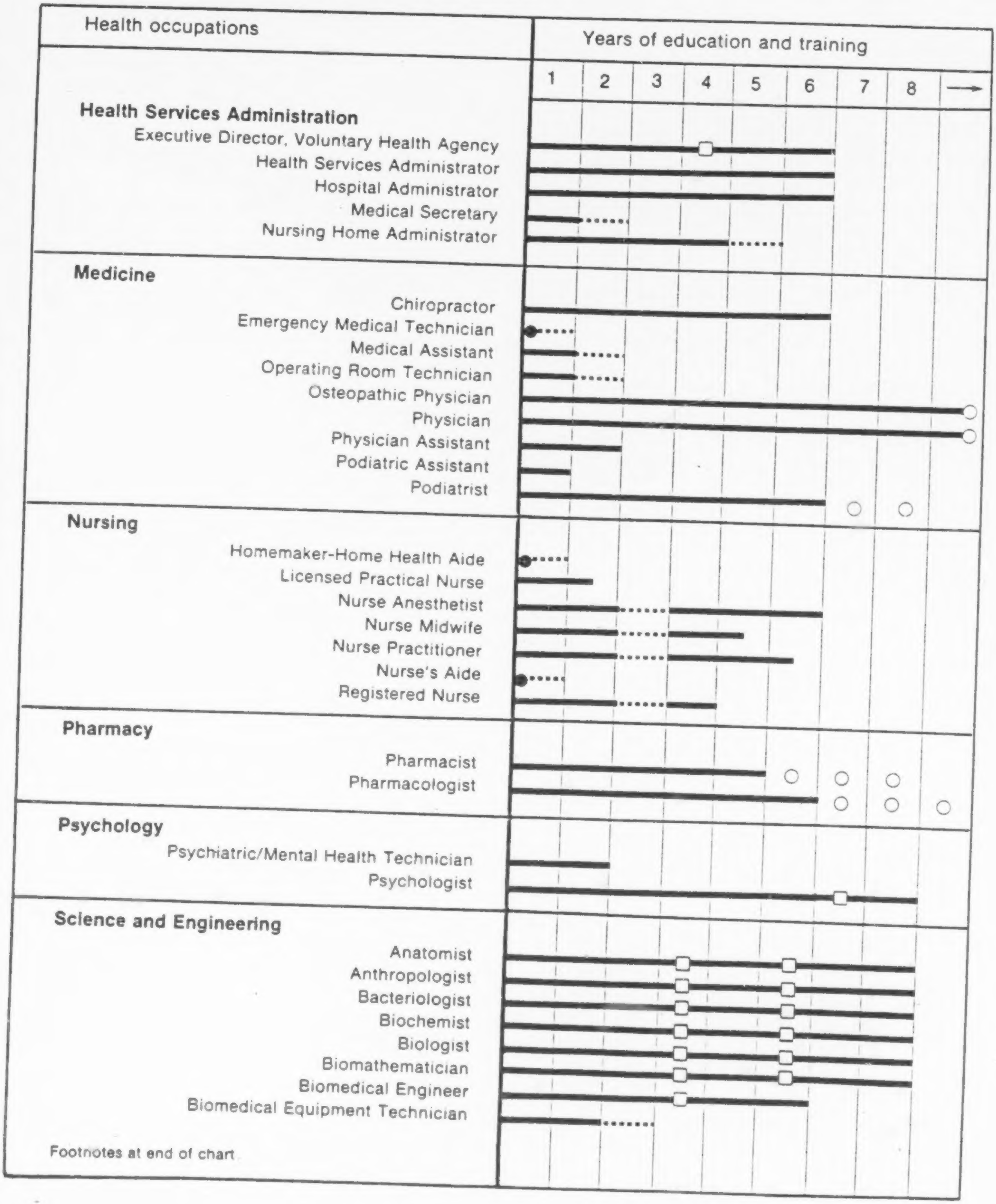
●	Requires no special training.
●···············	Entails an apprenticeship, special course, or on-the-job training.
————————	Requires special training in college, a hospital, special school, or a professional school after 1 to 4 years of college.
○	Though the line shows the minimum period to qualify, more preprofessional years in college lengthen the total training time.
☐	First square means one can get a junior professional job after college. Subsequent squares indicate that more study--to or beyond the master's or doctor's degree--as well as experience is usually needed for advancement.
————·······	Requires special training of varying periods of time.

This calendar pictures training information in condensed timetable form. To get a more detailed picture, read the *Health Careers Guidebook** Occupational Descriptions and consult your school advisers for information and personal guidance on training and the local outlook for the career you want.

---

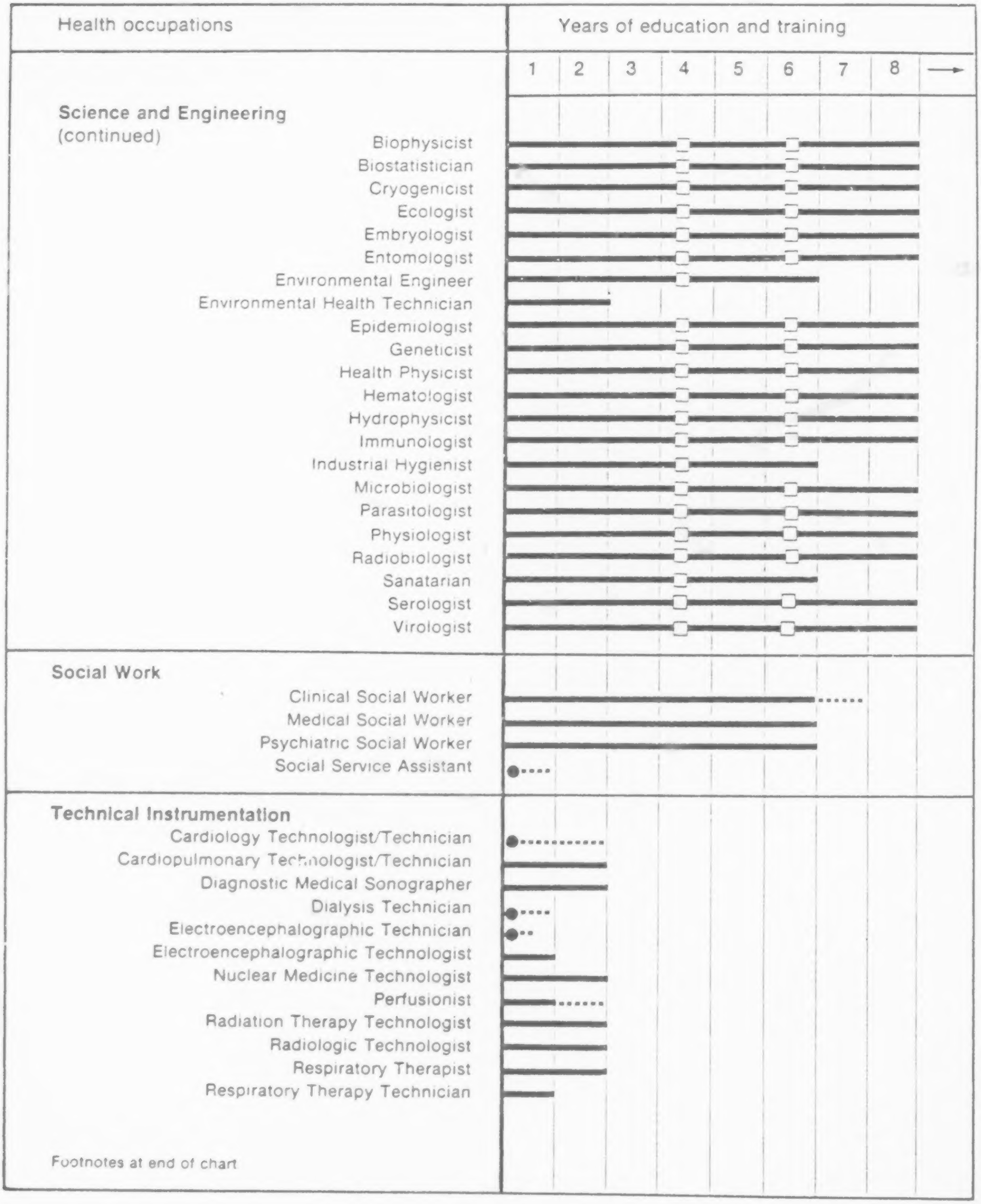
* Health Careers Guidebook, U. S. Department of Labor, Employment and Training Administration.

Years of Education and Training Beyond High School For Careers in Health Occupation--Continued



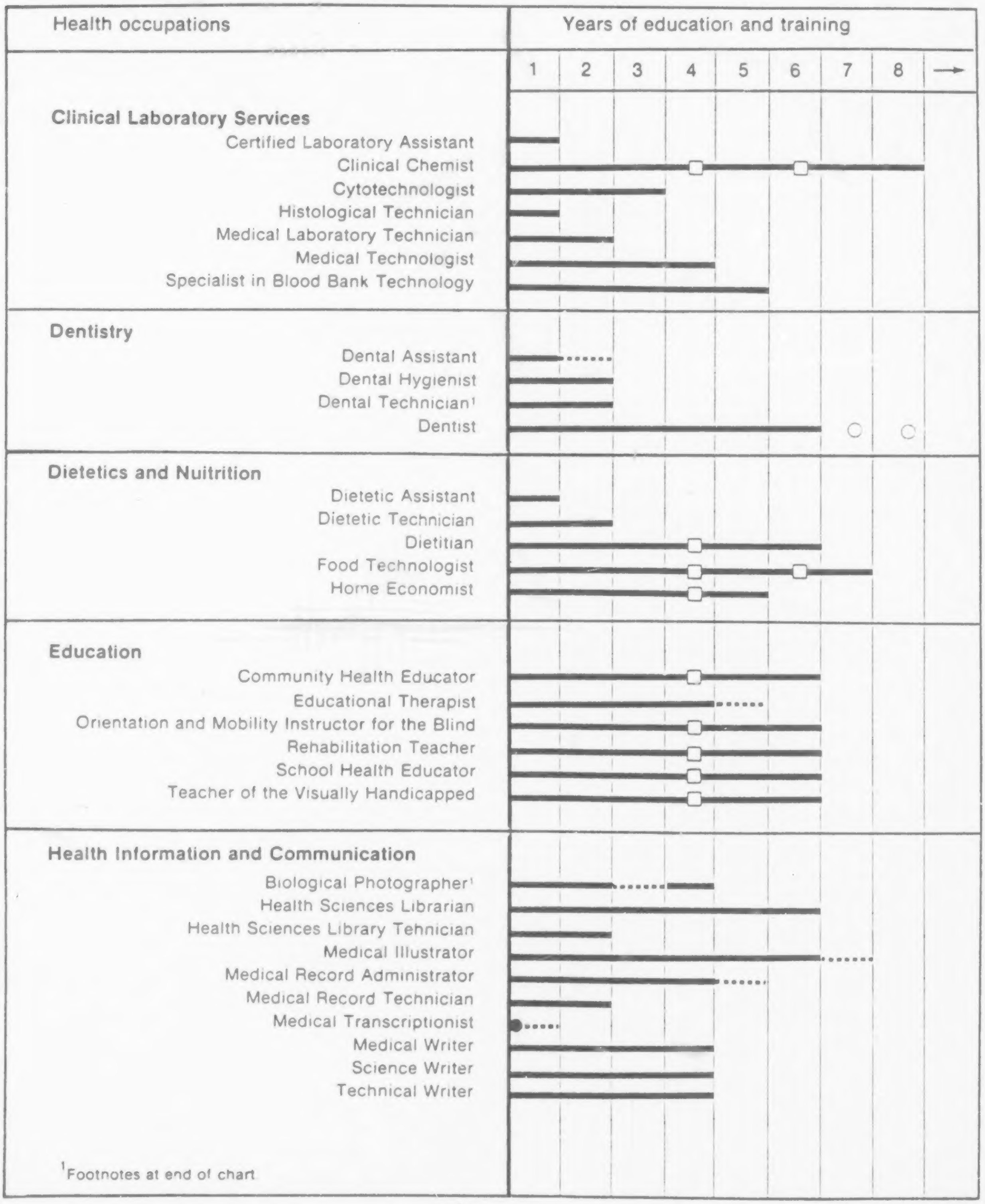
Footnotes at end of chart

Years of Education and Training Beyond High School For Careers in Health Occupations--Continued



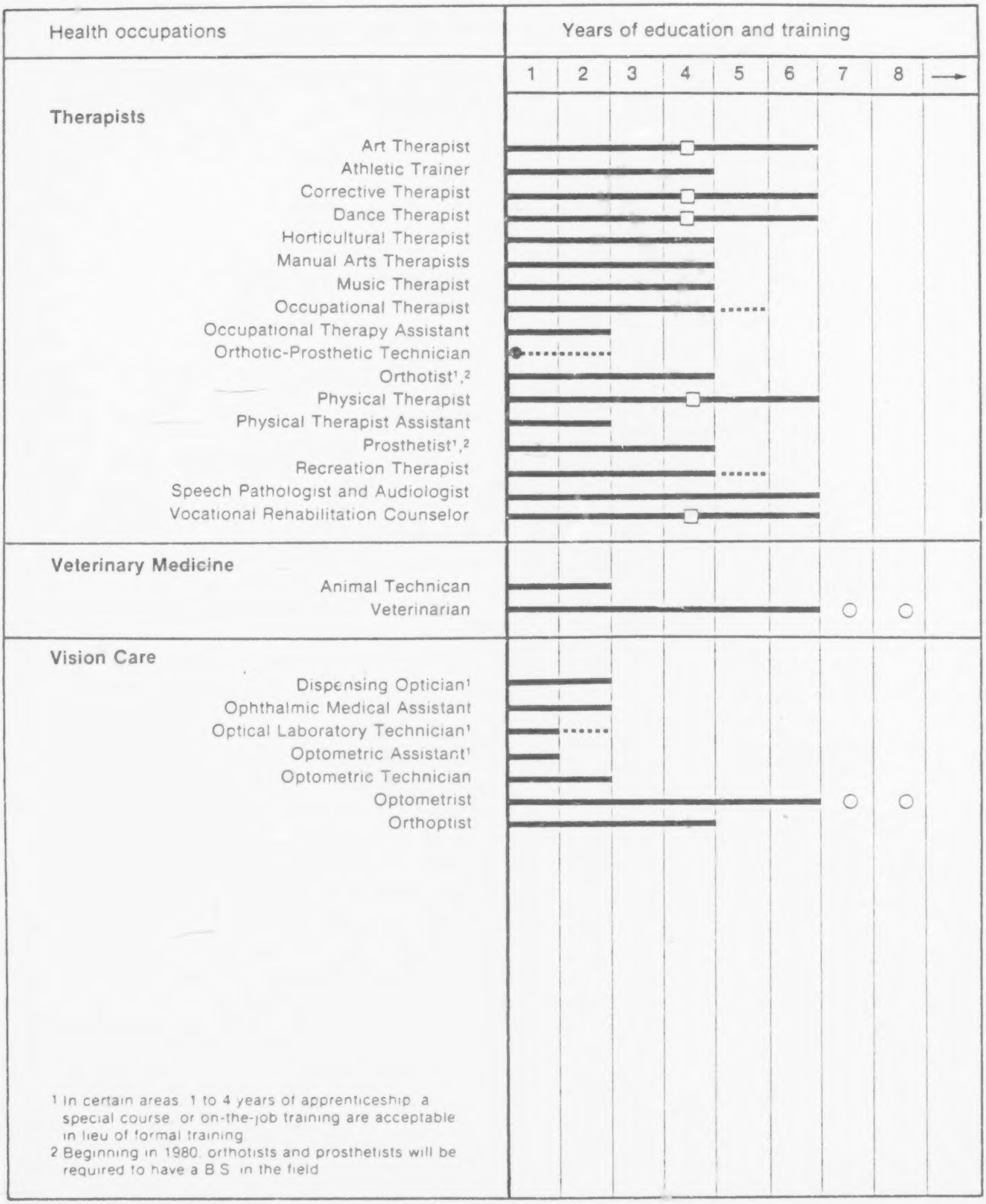
Footnotes at end of chart

Years of Education and Training Beyond High School For Careers in Health Occupations



[1] Footnotes at end of chart

Years of Education and Training Beyond High School For Careers in Health Occupations--Continued



[1] In certain areas, 1 to 4 years of apprenticeship, a special course, or on-the-job training are acceptable in lieu of formal training

[2] Beginning in 1980, orthotists and prosthetists will be required to have a B.S. in the field

Occupational Report 380 0

in Cooperation with the U.S. Department of Labor

The information collected on this form by the Bureau of Labor Statistics and the State agencies cooperating in its statistical programs will be held in confidence and will be used for statistical purposes only

This report is authorized by law 29 U.S.C. 882. Your voluntary cooperation is needed to make the results of this survey comprehensive, accurate, and timely.

Form Approve
O M B No. 1220 004
Approval expires 12-31-8

OCCUPATIONAL EMPLOYMENT SURVEY FOR HOSPITALS

INSTRUCTIONS–PLEASE COMPLETE SECTIONS I thru V–This form requests information on the number of workers you employ by occupation–No wage or accounting information is required.

SECTION I – COVERAGE

a. **PRODUCT OR SERVICE:** According to our records, your products or services are related to those listed on the label below.

If this list is not generally appropriate, please specify below and continue to item b.

____

____

____

____

HOSPITALS PROVIDING DIAGNOSTIC SERVICES, EXTENSIVE MEDICAL TREATMENT INCLUDING SURGICAL AND OTHER HOSPITAL SERVICES, AND CONTINUOUS NURSING SERVICES. HAVE ORGANIZED MEDICAL STAFF, INPATIENT BEDS, AND EQUIPMENT AND FACILITIES TO PROVIDE COMPLETE HEALTH CARE.

b. **UNIT(S) COVERED**

Please report for only the unit(s) identified by the words "report for," on the label below. As a guide, our estimate of the unit(s) employment is in the lower right corner. If the unit(s) identified cover(s) more than one location, how many? → ____

Some employers may receive more than one form and are asked to report separatel for each unit(s) covered by the individual forms.

(Please change address if incorrect)

(Employment)

Office Use Only	
Status	
Auxiliary	

c. **SURVEY PERIOD:** Pay period including April 12, 1983

Please report for the pay period which includes this date. If, because of *unusual* operational problems, this period is not typical, choose a period that approximates the norm and specify → ________
Seasonal and general economic changes in employment should *not* be considered an unusual operational problem.

If the unit(s) did not operate under your management during the survey period, annotate below
☐ Out of Business ☐ Sold or Merged New name & address → ________________

d. **UNIT EMPLOYMENT:** How many employees, as defined below, are covered by this report? ________

Office Code
999999

COVERED EMPLOYEES Full or part time paid workers; Workers on *paid* vacations or other types of leave; Workers on *unpaid* short term absences (i e., illness, bad weather, temporary layoff, jury duty); Salaried officers, executives and staff of incorporated firms, Employees temporarily assigned to other units; Employees for whom this unit is their permanent (home) duty station, regardless of whether this unit prepares their pay check.

NON COVERED EMPLOYEES: Proprietors, owners and partners of unincorporated firms; Unpaid family workers, Workers on extended leave (i e , pensioners and members of the armed forces) and workers on long term layoff

• IF QUESTIONS ARISE CONCERNING YOUR REPORT, WHOM SHOULD WE CONTACT?

SECTION II: UNIT(S) STATUS

a. **TYPE OF OWNERSHIP** *(Please check one of the following)*

☐ Corporation ☐ Partnership ☐ Sole Proprietorship ☐ Other *(explain)* → ____________

b. **AUXILIARY STATUS** Is the Unit *primarily* engaged in performing services for *other* units of your company? ☐ Yes ☐ No If yes, please check block below

☐ Central administrative office ☐ Research, development, or testing lab ☐ Storage *(warehouse)* ☐ Other *(specify, e.g., powerplant)* → ____________

c. **RESEARCH AND DEVELOPMENT EMPLOYMENT** If this unit(s) has any employees engaged in research and development as defined below, enter total number of employees engaged in R&D → ______

SECTION III: DEFINITIONS AND SPECIAL INSTRUCTIONS

Report multiple job holders only once: Report an employee who performs work in two or more of the listed occupations in the job that you believe requires the *highest level of skill*. If there is no measureable difference in skill requirements, report the employee in the occupation in which he spends most of his time.

Report employees in the occupation in which they are working, not in an occupation for which they may have been trained, if that is different. For example, an employee trained as an Engineer but working as a Drafter, should be reported as a Drafter.

Report part time workers, learners, and apprentices in the occupation in which they ordinarily perform their work.

Research and Development: Include in this function employees who spend the greatest proportion of their time performing, managing, or administering basic and applied research in engineering, mathematics, physical, life (including medicine), and other sciences, and in the design and development of prototypes and processes. For purposes of this study, research and development *includes* the following types of activities: (a) Pursuit of planned research of new knowledge, whether or not the research has reference to a specific application. (b) Application of existing knowledge to problems involved in the creation of a new product or process, including work required to evaluate possible uses. (c) Application of existing knowledge to problems involved in the improvement of an existing product or process.

SECTION IV: REPORT EMPLOYMENT BY OCCUPATION

Report all covered employees in one of the listed occupations that follow. Use the "All Other" categories only when there is no appropriate occupation described. If accurate employment figures are not available, reasonable estimates may be given.

Research and Development workers, in addition to being included in the unshaded area, should be separately reported in the shaded area provided.

Please classify workers according to the definitions provided rather than by title alone.

INDEX TO MAJOR OCCUPATIONAL DIVISIONS IN SECTION IV

Page
Managerial and Administrative 3
Professional, Paraprofessional, and Technical 4
Sales and Related 14
Clerical and Administrative Support 15

Page
Service 18
Agricultural, Forestry, Fishing, and Related Occupations 22
Production, Construction, Operating, Maintenance, and Material Handling 22

EMPLOYMENT BY OCCUPATION

Occupations

Please report number of your employees by occupation.

MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS

Include in this division top and middle-level managers, administrators, and executives. Primary duties are policy making, planning, staffing, directing or controlling the activities of industrial, commercial, governmental or other establishments........ *Organization of this section* - Occupations in this section are ordered functionally as follows: Staff and administrative managerial; industry specific managerial; and a residual 'All Other' category ....*Special Instructions* - *Exclude* first-line supervisors and managers with first-line duties. These workers, if professional, paraprofessional or technical, should be reported with the workers they supervise. All other supervisors and manager/supervisors should be reported in the separate categories provided in each division. *Exclude* owners and partners of unincorporated firms. *Include* only managers and administrators who are exempt from the minimum wage and overtime provision of the Fair Labor Standards Act.

● *SELECTED STAFF AND ADMINISTRATIVE SPECIALTY MANAGERIAL OCCUPATIONS*

Occupations	Number of Employees	Office Code
FINANCIAL MANAGERS (CONTROLLERS; FINANCE DEPARTMENT MANAGERS; TREASURERS; ETC.): Plan, organize, direct, control, or coordinate the financial activities of an organization. Include managers in banks or similar financial institutions who advise on credit and investment policy or negotiate general policy with financial or other institutions.		**130023**
PERSONNEL, TRAINING, AND LABOR RELATIONS MANAGERS (PERSONNEL DEPARTMENT MANAGERS; BENEFITS DIRECTORS; INDUSTRIAL RELATIONS DIRECTORS; ETC.): Plan, organize, direct, control, or coordinate the personnel, training or labor relations activities of an organization. Work involves establishing employer-relations policies; directing the selection, training, and evaluation of employees; administering benefits, safety, and recreation programs; developing wage and salary schedules; coordinating bargaining activities; and advising on labor contract administration.		**130053**
PURCHASING MANAGERS (PROCUREMENT MANAGERS; ETC.): Plan, organize, direct, control, or coordinate the activities of buyers, purchasing officers, and related workers involved in purchasing materials, products, or services. Include wholesale or retail trade merchandising managers		**130083**
MARKETING, ADVERTISING, AND PUBLIC RELATIONS MANAGERS (PROMOTION MANAGERS; ETC.): Formulate marketing policies, direct sales activities, and plan, organize, and direct advertising and public relations activities for a department, an entire organization, or on an account basis.		**130113**
ADMINISTRATIVE SERVICES MANAGERS (CONTRACT ADMINISTRATORS; ETC.; EXCLUDE PROCUREMENT MANAGERS): Plan, organize, direct, control, or coordinate the supportive services department of businesses, agencies, and organizations. Typical Administrative Service Managers are Office Managers, Property Managers, and Contract Administrators. Managers who spend less than 80% of their time in administrative services should be classified in another appropriate managerial category. *Exclude* Procurement Managers.		**130143**

22

EMPLOYMENT BY OCCUPATION

Occupations	Number of Employees		Office C
● *OTHER MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS*			
MEDICINE AND HEALTH SERVICES MANAGERS (EMERGENCY MEDICAL SERVICE COORDINATORS; MEDICAL RECORDS ADMINISTRATORS; NURSING SERVICE DIRECTORS; ETC.): Plan, organize, direct, control, or coordinate medicine and health services in establishments, such as hospitals, clinics, or similar organizations.	R&D + Non R&D =		15008
	R&D Only		15008
FOOD SERVICE AND LODGING MANAGERS: Plan, organize, direct, control, or coordinate management activities of an organization or department that serves food and beverages and/or provides lodging and other accommodations. Include Food and Beverage Directors.			15026
GENERAL MANAGERS AND TOP EXECUTIVES (CHIEF HOSPITAL ADMINISTRATORS; ETC.): Include both top and mid level managers whose duties and responsibilities are too diverse and general in nature to be classified in any functional or line area of management and administration. These managers generally work through departmental or subordinate executives. *Exclude* managers of smaller establishments who typically engage in the same activities as the workers they supervise and report them in the appropriate category in the other divisions.	R&D + Non R&D =		19005
	R&D Only		19005
ALL OTHER MANAGERS AND ADMINISTRATORS (ENGINEERING DEPARTMENT MANAGERS; PROPERTIES MANAGERS; CAFETERIA MANAGERS; RESEARCH AND DEVELOPMENT MANAGERS; ETC.): Include all other workers in this category not classified separately above. *Please identify in Section V (at the end of this form) all occupations included in this category that are numerically important and require substantial training, or are emerging due to technological changes in your industry.*	R&D + Non R&D =		19999
	R&D Only		19999

PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL OCCUPATIONS

Include in this division persons concerned with the theoretical or practical aspects of such fields as science, art, education, law and business relations where substantial post-secondary educational preparation, or equivalent on-the job training or experience is required.......... *Organization of this section* - Occupations in this section are ordered functionally as follows: General management support; engineering and scientific; data processing and mathematical; social science, law and related; teaching and related; medicine and health; writing, art and related; and a residual 'All Other' category.......... *Special Instructions* - Quality Control Workers should be reported according to the nature of the quality control process (i.e. chemical, mechanical, biological). Thus, an Engineer engaged in quality control work of a chemical nature should be reported as a Chemical Engineer.......... Unlike the other divisions of this form, first-line supervisors and managers with first-line duties should be reported along with the workers they supervise.

● *MANAGEMENT SUPPORT OCCUPATIONS*

ACCOUNTANTS, AUDITORS, AND OTHER FINANCIAL SPECIALISTS: Include persons engaged in planning and administering accounting services, advising on tax and accountancy problems, conducting audits, and planning and administering other financial activities, such as budget analysis, mortgage approval, credit and underwriting analysis, and foreign exchange trading.

ACCOUNTANTS AND AUDITORS: Examine, analyze, and interpret accounting records for the purpose of giving advice or preparing statements and installing or advising on systems of recording costs or other financial and budgetary data.		211143

EMPLOYMENT BY OCCUPATION

Occupations	Number of Employees	Office Code
BUDGET ANALYSTS: Examine budget estimates for completeness, accuracy, and conformance with procedures and regulations. Examine requests for budget revisions, recommend approval or denial, and draft correspondence. Analyze monthly department budgeting and accounting reports for the purpose of maintaining expenditure controls. Provide technical assistance to officials in the preparation of budgets.		211173
ALL OTHER FINANCIAL SPECIALISTS: Include all other workers in this category not classified separately above. *Please identify in Section V (at the end of this form) all occupations included in this category that are numerically important and require substantial training, or are emerging due to technological changes in your industry.*		211993
PURCHASING AGENTS- EXCEPT WHOLESALE, RETAIL, AND FARM PRODUCTS: Purchase raw or semi-finished materials for manufacturing or purchase machinery, equipment, tools, parts, supplies, or services necessary for the operation of an establishment. Include Contract Specialists, Field Contractors, Purchase Price Analysts, Tooling Coordinators, and Media Buyers.		213083
PERSONNEL, TRAINING, AND LABOR RELATIONS SPECIALISTS: Conduct programs of recruitment, selection, placement, training, promotion, welfare, safety, compensation, or separation of employees. May specialize in specific areas such as labor-management relations, counseling, job analysis, position classification, training, or compensation. *Exclude* occupations in personnel research and in the administration of testing and counseling programs for which a background in psychology is required. Also *exclude* Employment Interviewers, Private or Public Employment Service.		215113
COST ESTIMATORS: Prepare cost estimates for manufacturing of products, construction projects, or services to aid management in bidding on or determining price of products or services. May specialize according to particular service performed or product produced.		219023
COMPLIANCE OFFICERS AND ENFORCEMENT INSPECTORS, EXCEPT CONSTRUCTION: Enforce adherence to policies, procedures, or regulations and advise on standards. May be employed in the public or private sector and inspect and enforce regulations on such matters as health, safety, food, immigration, licensing, or interstate commerce.		219113
ALL OTHER MANAGEMENT SUPPORT WORKERS (MANAGEMENT ANALYSTS; PROFESSIONAL ADMINISTRATIVE ASSISTANTS; ETC.): Include all other workers in this category not classified separately above. *Please identify in Section V (at the end of this form) all occupations included in this category that are numerically important and require substantial training, or are emerging due to technological changes in your industry.*		219993
● *ENGINEERS AND RELATED OCCUPATIONS*		
ENGINEERS (EXCLUDE SALES ENGINEERS- SEE SALES DIVISION): Include persons engaged in the practical application of physical laws and principles of engineering for the development and utilization of machines, materials, instruments, processes, and services. Include Engineers in research, development, production, technical services, and other positions which require knowledge normally obtained through completion of a 4-year engineering college program. *Exclude* Sales Engineers and report them with the Sales Workers and *exclude* persons trained in engineering but currently working in positions not requiring engineering training.		
CIVIL ENGINEERS, INCLUDING TRAFFIC (STRUCTURAL ENGINEERS; HYDRAULIC ENGINEERS; SANITARY ENGINEERS; ETC.): Perform a variety of engineering work in planning, designing, and overseeing construction and maintenance of structures and facilities, such as roads, railroads, airports, bridges, harbors, channels, dams, irrigation projects, pipelines, power plants, water and sewage systems, and waste disposal units. Include Traffic Engineers who specialize in studying vehicular and pedestrian traffic conditions.	R&D + Non R&D = R&D Only	221213 221215
ELECTRICAL AND ELECTRONIC ENGINEERS (ELECTRICAL DESIGN ENGINEERS; COMPUTER ENGINEERS; ELECTRICAL PRODUCTS AND SYSTEMS ENGINEERS; ETC.): Design, develop, test and supervise the manufacture and installation of electrical and electronic equipment, components or systems, computers and related equipment and systems for commercial, industrial, military or scientific use. *Exclude* Sales Engineers and report them with the Sales Workers.	R&D + Non R&D = R&D Only	221263 221265

EMPLOYMENT BY OCCUPATION

Occupations	Number of Employees	Office Code
INDUSTRIAL ENGINEERS, EXCEPT SAFETY (TIME STUDY ENGINEERS; INDUSTRIAL QUALITY CONTROL ENGINEERS; ETC.): Perform a variety of engineering work in planning and overseeing the utilization of production facilities and personnel in department or other subdivision of industrial establishment. Plan equipment layout, workflow, and accident prevention measures to maintain efficient and safe utilization of plant facilities. Plan and oversee work study and training programs to promote efficient worker utilization. Develop and oversee quality control, inventory control, and production record systems. Industrial Product Safety Engineers should be included with Safety Engineers.	R&D + Non R&D =	221283
	R&D Only	221285
MECHANICAL ENGINEERS (FACILITIES OR PRODUCTS MECHANICAL ENGINEERS; PLANT EQUIPMENT ENGINEERS; TOOL DESIGN ENGINEERS; ETC.): Perform a variety of engineering work in the planning and designing of tools, engines, machines, and other mechanically functioning equipment, and oversee installation, operation, maintenance, and repair of such equipment, including centralized heat, gas, water, and steam systems. *Exclude* Sales Engineers and report them with the Sales Workers.	R&D + Non R&D =	221353
	R&D Only	221355
ALL OTHER ENGINEERS (OPTICAL ENGINEERS; PACKAGING ENGINEERS; BIOMEDICAL ENGINEERS; SAFETY ENGINEERS; ETC.): Include all other workers in this category not classified separately above. *Please identify in Section V (at the end of this form) all occupations included in this category that are numerically important and require substantial training, or are emerging due to technological changes in your industry.*	R&D + Non R&D =	221993
	R&D Only	221995

ENGINEERING AND RELATED TECHNICIANS AND TECHNOLOGISTS: Include persons who assist Engineers, Architects, or Surveying and Mapping Scientists in laboratory or production activities, such as research, development, equipment or machine design, testing, quality control, and efficiency studies. Normally these technicians work under the general supervision of an Engineer, Architect, or Surveying and Mapping Scientists, utilizing basic knowledge of principles and techniques in specific areas of engineering, science, mathematics, drafting, and surveying and mapping. Repair Technicians whose work is primarily maintenance and not developmental are *excluded* and should be reported with Mechanics and Repairers.

Occupations	Number of Employees	Office Code
CIVIL ENGINEERING TECHNICIANS AND TECHNOLOGISTS: Apply theory and principles of civil engineering in planning, designing, and overseeing construction and maintenance of structures and facilities under the direction of engineering staff and physical scientists.	R&D + Non R&D =	225023
	R&D Only	225025
ELECTRICAL AND ELECTRONIC ENGINEERING TECHNICIANS AND TECHNOLOGISTS (RESEARCH INSTRUMENTATION TECHNICIANS; ETC.): Apply electrical and electronic theory and related knowledge to design, build, test, repair, and modify developmental, experimental, or production electrical equipment in industrial or commercial plants and for subsequent use by engineering personnel in making engineering design and evaluation decisions.	R&D + Non R&D =	225053
	R&D Only	225055
INDUSTRIAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS (TIME STUDY TECHNICIANS; ETC.): Study and record time, motion, method, and speed involved in performance of production, maintenance, clerical, and other worker operations for such purposes as establishing standard production rates or improving efficiency. Usually work under the direction of engineering staff.	R&D + Non R&D =	225083
	R&D Only	225085
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS (TOOL OR DIE DRAWING CHECKERS; OPTOMECHANICAL TECHNICIANS; ETC.): Apply theory and principles of mechanical engineering to develop and test machinery and equipment under direction of engineering staff and physical scientists.	R&D + Non R&D =	225113
	R&D Only	225115

EMPLOYMENT BY OCCUPATION

Occupations	Number of Employees	Office Co
DRAFTERS (DETAIL DRAFTERS; STRUCTURAL DRAFTERS; CHIEF DRAFTERS; MECHANICAL DRAFTERS; ETC.): Prepare clear, complete, and accurate working plans and detail drawings from rough or detailed sketches or notes for engineering or manufacturing purposes according to specified dimensions. Utilize knowledge of various machines, engineering practices, mathematics, building materials, and other physical sciences to complete drawings.	R&D + Non R&D = R&D Only	225143 225145
ALL OTHER ENGINEERING AND RELATED TECHNICIANS AND TECHNOLOGISTS (RESEARCH MECHANICS; ETC.): Include all other workers in this category not classified separately above. *Please identify in Section V (at the end of this form) all occupations included in this category that are numerically important and require substantial training, or are emerging due to technological changes in your industry.*	R&D + Non R&D = R&D Only	225993 225995
● *NATURAL SCIENTISTS AND RELATED WORKERS*		
PHYSICAL SCIENTISTS: Include persons engaged in research, development, production, or providing technical services pertaining to the physical universe (i.e. Geologists, Chemists, Physicists, etc.). Work may focus on increasing the basic knowledge of the physical universe or the application of these scientific principles and theories to specific problems and situations. Physical Scientists are engaged in scientific work which requires knowledge normally obtained by completion of a 4-year physical sciences college program. *Exclude* Biophysicists and Biochemists and report them with Life Scientists.		
CHEMISTS, EXCEPT BIOCHEMISTS (PHYSICAL CHEMISTS; POLLUTION CONTROL CHEMISTS; ANALYTICAL CHEMISTS; ETC.): Conduct chemical tests, qualitative and quantitative chemical analyses, or chemical experiments in laboratories for quality or process control or to develop new products or new knowledge. *Exclude* Biochemists.	R&D + Non R&D = R&D Only	241053 241055
ALL OTHER PHYSICAL SCIENTISTS (WATER QUALITY ANALYSTS; ENVIRONMENTAL SCIENTISTS; ETC.): Include all other workers in this category not classified separately above. *Please identify in Section V (at the end of this form) all occupations included in this category that are numerically important and require substantial training, or are emerging due to technological changes in your industry.*	R&D + Non R&D = R&D Only	241993 241995
LIFE SCIENTISTS (BIOLOGISTS; BIOCHEMISTS; BIOPHYSICISTS; ETC.): Include persons engaged in research, development, production, or providing technical services pertaining to the life sciences (i.e. Agricultural, Biological, Medical Scientists, etc.). Work may focus on increasing the basic knowledge of life sciences or the application of these scientific principles and theories to specific problems and situations. Life Scientists engage in scientific work which requires knowledge normally obtained by completion of a 4-year life sciences college program. Include Biophysicists and Biochemists.		
BIOLOGICAL SCIENTISTS (BIOCHEMISTS; BIOPHYSICISTS; CYTOLOGISTS; MICROBIOLOGISTS; GENETICISTS; PHYSIOLOGISTS; ETC.): Include scientists concerned with research into problems dealing with life processes. Include Biologists, Biochemists, Biophysicists, Pathologists, Pharmacologists, Bacteriologists, Toxicologists, and Zoologists. *Exclude* Medical and Agricultural Scientists.	R&D + Non R&D = R&D Only	243083 243085
MEDICAL SCIENTISTS (PUBLIC HEALTH MICROBIOLOGISTS; ANATOMISTS; PARASITOLOGISTS; HISTOPATHOLOGISTS; PHARMACOLOGISTS; ETC.; EXCLUDE MEDICAL PRACTITIONERS AND PHARMACISTS): Include Medical Scientists such as Physicians, Dentists, Public Health Specialists, Pharmacists, and Medical Pathologists who are concerned with the understanding of human diseases and improvement of human health and are engaged in clinical investigation or other research, production, technical writing, or related activities. *Exclude* practitioners who provide medical care or dispense drugs.	R&D + Non R&D = R&D Only	243113 243115

26

EMPLOYMENT BY OCCUPATION

Occupations	Number of Employees	Office Code
ALL OTHER LIFE SCIENTISTS: Include all other workers in this category not classified separately above. *Please identify in Section V (at the end of this form) all occupations included in this category that are numerically important and require substantial training, or are emerging due to technological changes in your industry.*	R&D + Non R&D =	243993
	R&D Only	243995
PHYSICAL AND LIFE SCIENCE TECHNICIANS AND TECHNOLOGISTS: Include persons who assist physical and life scientists in laboratory and production activities, such as laboratory analysis; quality control; design and maintenance of special apparatus, plant, and equipment; and developing industrial processes. Normally these technicians work under the direct supervision of a Physical or Life Scientist and assist in those activities which are more routine in nature. *Exclude* Medical and Dental Technicians and Technologists.		
BIOLOGICAL, AGRICULTURAL, AND FOOD TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH (EXCLUDE CLINICAL LABORATORY TECHNOLOGISTS AND TECHNICIANS): Assist scientists in laboratory and production activities by performing tasks necessary to experiment, test, and develop new and improved methods in production, preservation, and processing of plant and animal life. Develop improved methods of processing and preserving for artificial insemination. Test blood of poultry to ascertain presence of disease. Include Agricultural Technicians who treat ornamental and shade trees to improve their health and appearance.	R&D + Non R&D =	245023
	R&D Only	245025
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH (CHEMICAL LABORATORY TESTERS; ETC.): Conduct chemical and physical laboratory tests to assist scientists in making qualitative and quantitative analyses of solids, liquids, and gaseous materials for purposes such as research and development of new products or processes, quality control, maintenance of environmental standards, and other work involving experimental, theoretical, or practical application of chemistry and related sciences.	R&D + Non R&D =	245053
	R&D Only	245055
ALL OTHER PHYSICAL AND LIFE SCIENCE TECHNICIANS AND TECHNOLOGISTS (AIR ANALYSIS TECHNICIANS; ETC.): Include all other workers in this category not classified separately above. *Please identify in Section V (at the end of this form) all occupations included in this category that are numerically important and require substantial training, or are emerging due to technological changes in your industry.*	R&D + Non R&D =	245993
	R&D Only	245995
● *COMPUTER, MATHEMATICAL, OPERATIONS RESEARCH, AND RELATED OCCUPATIONS*		
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING (SOFTWARE SYSTEMS ANALYSTS; INFORMATION SCIENTISTS; COMPUTER SCIENTISTS; ETC.): Analyze business, scientific, and technical problems for application to electronic data processing systems. *Exclude* persons working primarily as Engineers, Mathematicians, or Scientists.	R&D + Non R&D =	251023
	R&D Only	251025
COMPUTER PROGRAMMERS (BUSINESS, SCIENTIFIC, OR ENGINEERING PROGRAMMERS; ETC.): Convert symbolic statements of administrative data, business, scientific, engineering, and other technical problem formulations to detailed logical flow chart for coding into computer language; develop and write computer programs to store, locate, and retrieve specific documents, data, and information.	R&D + Non R&D =	251053
	R&D Only	251055
COMPUTER PROGRAMMER AIDES: Assist Computer Programmers or Systems Analysts by performing computer related tasks, such as entering completed programs for conversion to machine instructions, writing simple programs to retrieve data, and other duties to assist in the process of data or to control industrial processes.		251083
MATHEMATICAL SCIENTISTS: Conduct research in fundamental mathematics and in the application of mathematical techniques to science, management, and other fields and solve or direct solutions to problems in various fields by mathematical methods.		

EMPLOYMENT BY OCCUPATION

Occupations	Number of Employees	Office Cod
STATISTICIANS (BIOMETRICIANS; TIME STUDY STATISTICIANS; MATHEMATICAL STATISTICIANS; ETC.): Plan surveys and collect, organize, interpret, summarize, and analyze numerical data, applying statistical theory and methods to provide usable information in scientific, business, economic, and other fields. The data derived from surveys may represent either complete enumeration or statistical samples. Include Mathematical Statisticians who are engaged in the development of mathematical theory associated with the application of statistical techniques.	R&D + Non R&D = R&D Only	**253123** **253125**
ALL OTHER MATHEMATICAL SCIENTISTS (MATHEMATICIANS; ETC.): Include all other workers in this category not classified separately above. *Please identify in Section V (at the end of this form) all occupations included in this category that are numerically important and require substantial training, or are emerging due to technological changes in your industry.*	R&D + Non R&D = R&D Only	**253193** **253195**
MATHEMATICAL TECHNICIANS (EXCLUDE STATISTICAL CLERKS): Apply standardized mathematical formulas, principles, and methodology to technical problems in engineering and physical science in relation to specific industrial and research objectives, processes, equipment, and products.	R&D + Non R&D = R&D Only	**253233** **253235**
● *SOCIAL SCIENTISTS AND OTHER SOCIAL, RECREATIONAL, AND RELIGIOUS OCCUPATIONS*		
SOCIAL SCIENTISTS, INCLUDING URBAN AND REGIONAL PLANNERS: Include persons concerned with human society and its characteristic elements, such as origin, race, or state; with economic and social relations and institutions involved in man's existence as a member of an organized community; and with the collection, interpretation, and application of scientific data relating to human behavior and mental processes. Include occupations such as Economists, Psychologists, Market Research Analysts, and Urban and Regional Planners.		
PSYCHOLOGISTS (CLINICAL PSYCHOLOGISTS; SOCIAL PSYCHOLOGISTS; ETC.): Collect, interpret, and apply scientific data relating to human behavior and mental processes. Activities are in either applied fields of psychology or in basic science fields and research. *Include* occupations in personnel research and in administration of testing and counseling programs. *Exclude* Psychiatrists.	R&D + Non R&D = R&D Only	**271083** **271085**
ALL OTHER SOCIAL SCIENTISTS (HISTORIANS; SOCIOLOGISTS; ETC.): Include all other workers in this category not classified separately above. *Please identify in Section V (at the end of this form) all occupations included in this category that are numerically important and require substantial training, or are emerging due to technological changes in your industry.*	R&D + Non R&D = R&D Only	**271993** **271995**
SOCIAL WORKERS, MEDICAL AND PSYCHIATRIC (DRUG OR ALCOHOL ADDICTION COUNSELORS; MEDICAL CASEWORKERS; ETC.): Counsel and aid individuals and families with problems that may arise during or following the recovery from physical or mental illness by providing supportive services designed to help the persons understand, accept, and follow medical recommendations. Include Chemical Dependency Counselors.		**273023**
SOCIAL WORKERS, EXCEPT MEDICAL AND PSYCHIATRIC (COMMUNITY ORGANIZATION WORKERS; CASEWORKERS; ETC.): Counsel and aid individuals and families requiring social service assistance. Include Community Organization Social Workers who plan, organize and work with community groups to solve problems. *Exclude* Medical, Psychiatric, and Chemical Dependency Social Workers.		**273053**
SOCIAL SERVICE TECHNICIANS (CASE AIDES; ETC.): Assist Social Group Workers and Caseworkers with developing, organizing, and conducting programs to prevent and resolve problems relevant to substance abuse and human relationships. Provide services to families and clients where the nature of the problem, or relationships involved, is less complex or serious by helping them obtain information on the use of social and community related services. May recommend additional services.		**273083**

EMPLOYMENT BY OCCUPATION

Occupations		Number of Employees	Office C
CLERGY (PRIESTS; RABBIS; MINISTERS; ETC.): Conduct religious worship and perform other spiritual functions associated with beliefs and practices of religious faith or denomination as delegated by ordinance, license, or other authorization and provide spiritual and moral guidance and assistance to members.			27502
● *TEACHERS, EDUCATORS, LIBRARIANS, AND RELATED OCCUPATIONS*			
NURSING INSTRUCTORS: Demonstrate and teach patient care in classroom and clinical units to nursing students. Instruct students in principles and application of physical, biological, and psychological subjects related to nursing. Lecture, conduct, and supervise laboratory experiments. Issue assignments, direct seminars, etc. Participate in planning curriculum with medical and nursing personnel and in evaluating and improving teaching and nursing practices. May specialize in specific subjects, such as anatomy or chemistry, or in a type of nursing activity, such as nursing of surgical patients.			31114
TEACHERS AND INSTRUCTORS, VOCATIONAL EDUCATION AND TRAINING: Teach or instruct vocational and/or occupational subjects at the post-secondary level (but at less than the baccalaureate) to students who have graduated or left high school. A variety of subjects such as business, secretarial science, data processing, trades, or practical nursing are included. Include correspondence school instructors; industrial, commercial or government training instructors; and other adult education teachers and instructors who prepare persons to operate industrial machinery and equipment and transportation and communications equipment. Teaching and instruction may take place in public or private schools whose primary business is education or in a school associated with an organization whose primary business is other than education.			31314
ALL OTHER TEACHERS AND INSTRUCTORS: Include all other workers in this category not classified separately above. *Please identify in Section V (at the end of this form) all occupations included in this category that are numerically important and require substantial training, or are emerging due to technological changes in your industry.*			313993
LIBRARIANS, PROFESSIONAL (EXCLUDE MEDICAL RECORDS LIBRARIANS): Include persons concerned with administering libraries and performing related library services including selecting, acquiring, cataloging, classifying, circulating, and maintaining library materials or furnishing references, bibliographies, and reader's advisory services. May select music, films, or other audio-visual material for subject matter of program.			315023
TECHNICAL ASSISTANTS, LIBRARY: Assist librarians by furnishing information on library sciences, facilities, and rules, by assisting readers in the use of card catalogs and indexes to locate books and other materials; and by answering questions that require only brief consultation of standard reference. May train and supervise clerical staff or catalog books.			315053
● *HEALTH PRACTITIONERS, TECHNOLOGISTS, AND RELATED OCCUPATIONS*			
HEALTH DIAGNOSING AND TREATING PRACTITIONERS: Include persons engaged in preventing and diagnosing human and animal ailments, and prescribing and giving medical and surgical treatment for diseases and illnesses. Include occupations such as Physicians and Surgeons, Dentists, Optometrists, Podiatrists, Veterinarians and Veterinary Inspectors.			
PHYSICIANS AND SURGEONS (PSYCHIATRISTS; RADIOLOGISTS; OSTEOPATHS; GENERAL PRACTITIONERS; HEART SPECIALISTS; PEDIATRICIANS; OPHTHALMOLOGISTS; ETC.): Include doctors of medicine who diagnose and treat mental or physical disorders. May specialize in one field such as surgery, obstetrics, or psychiatry.	R&D + Non R&D =		321023
	R&D Only		321025
DENTISTS (ORTHODONTISTS; ENDODONTISTS; PERIODONTISTS; ORAL SURGEONS; ETC.): Diagnose and treat diseases, injuries, and malformations of teeth or gums and related oral structures.	R&D + Non R&D =		321053
	R&D Only		321055

29

380-0

EMPLOYMENT BY OCCUPATION

Occupations	Number of Employees	Office Co
OPTOMETRISTS (EXCLUDE OPTICIANS): Examine eyes to determine visual efficiency and performance by use of instruments and observation, and prescribe corrective procedures.	R&D + Non R&D = R&D Only	32108 32108
PODIATRISTS (PODIATRIC SURGEONS; ORTHOPEDIC PODIATRISTS; CHIROPODISTS; ETC.): Diagnose and treat diseases and deformities of the human foot	R&D + Non R&D = R&D Only	32111 32111
ALL OTHER HEALTH DIAGNOSING AND TREATING PRACTITIONERS (ACUPUNCTURISTS; HYPNOTHERAPISTS; CHIROPRACTORS; ETC.): Include all other workers in this category not classified separately above. *Please identify in Section V (at the end of this form) all occupations included in this category that are numerically important and require substantial training, or are emerging due to technological changes in your industry.*	R&D + Non R&D = R&D Only	32199 32199
THERAPISTS: Include persons engaged in administering health treatment to patients with disabilities, disorders and injuries to relieve pain, develop or restore functions; prevent muscular deconditioning, and maintain maximum performance. Treatment includes the use of exercise, massage, heat, water, light, music, art, or electricity as prescribed by a Physician.		
RESPIRATORY THERAPISTS (INHALATION THERAPISTS; ETC.): Set up and operate various types of equipment, such as iron lungs, oxygen tents, resuscitators, and incubators, to administer oxygen and other gases to patients.	R&D + Non R&D = R&D Only	32302 32302
OCCUPATIONAL THERAPISTS (INDUSTRIAL THERAPISTS; ETC.): Plan, organize, and participate in medically oriented occupational program in hospital or similar institution to rehabilitate patients who are physically or mentally ill.	R&D + Non R&D = R&D Only	32305 32305
PHYSICAL THERAPISTS (PEDIATRIC PHYSICAL THERAPISTS; PULMONARY PHYSICAL THERAPISTS; PHYSIOTHERAPISTS; ETC.): Apply techniques and treatments that help relieve pain, increase the patient's strength, and decrease or prevent deformity and crippling	R&D + Non R&D = R&D Only	32308 32308
CORRECTIVE AND MANUAL ARTS THERAPISTS: *Corrective Therapists:* Apply techniques and treatment designed to prevent muscular deconditioning resulting from long convalescence or inactivity due to chronic illness. *Manual Arts Therapists:* Instruct patients in prescribed manual arts activities to prevent anatomical and physiological deconditioning and to assist in maintaining, improving, or developing work skills	R&D + Non R&D = R&D Only	32311 32311
SPEECH PATHOLOGISTS AND AUDIOLOGISTS (SPEECH CLINICIANS; SPEECH THERAPISTS; ETC.): Examine and provide remedial services for persons with speech and hearing disorders and perform research related to speech and language problems.	R&D + Non R&D = R&D Only	32314 32314
RECREATIONAL THERAPISTS: Plan, organize, and direct medically approved recreation programs for patients in hospitals, nursing homes or other institutions. Activities include sports, trips, dramatics, social activities, and arts and crafts. *Exclude* therapists who specialize *only* in music or art therapy.		32317

EMPLOYMENT BY OCCUPATION

Occupations	Number of Employees	Office Co
ALL OTHER THERAPISTS (ART THERAPISTS; ORIENTATION THERAPISTS FOR THE BLIND; MUSIC THERAPISTS; ETC.): Include all other workers in this category not classified separately above. *Please identify in Section V (at the end of this form) all occupations included in this category that are numerically important and require substantial training, or are emerging due to technological changes in your industry*	R&D + Non R&D = R&D Only	323993 323995
● *SELECTED HEALTH CARE MAINTENANCE AND TREATING WORKERS*		
REGISTERED NURSES (NURSE PRACTITIONERS; GENERAL DUTY NURSES; NURSING SUPERVISORS; ETC.; EXCLUDE NURSING INSTRUCTORS): Administer nursing care to ill or injured persons. Include administrative, public health, industrial, private duty, and surgical nurses. Licensing or registration is required. *Exclude* Nursing Instructors and Teachers and report them in the Teachers, Educators, Librarians and Related Workers category.	R&D + Non R&D = R&D Only	325023 325025
LICENSED PRACTICAL NURSES: Care for ill, injured, convalescent, and handicapped persons in hospitals, clinics, private homes, sanitariums, and similar institutions		325053
EMERGENCY MEDICAL TECHNICIANS (E.M.T.; PARAMEDICS; ETC.; EXCLUDE AMBULANCE ATTENDANTS): Administer first aid treatment and transport sick or injured persons to medical facility working as a member of an emergency medical team.		325083
PHYSICIAN'S ASSISTANTS (SURGEONS'S ASSISTANTS; GYNECOLOGICAL ASSISTANTS; PEDIATRIC PHYSICIAN'S ASSISTANTS; ORTHOPEDIC PHYSICIAN'S ASSISTANTS; ETC.; EXCLUDE NURSES): Provide patient services under direct supervision and responsibility of doctor of medicine or osteopathy. Elicit detailed patient histories and do complete physical examinations. Reach tentative diagnosis and order appropriate laboratory tests. Require substantial educational preparation, usually at colleges or junior colleges. Most physician's assistants complete 2 years of formal training, but training may vary from 1 to 5 years depending on the nature of the training and previous education and experience. *Exclude* Ambulance Attendants, whose training is limited to the application of first aid, and Nurses.	R&D + Non R&D = R&D Only	325113 325115
OPTICIANS, DISPENSING AND MEASURING (EXCLUDE OPTOMETRISTS): Design, measure, fit, and adapt lenses and frames for client according to written optical prescription or specification. Assist client with selecting frames according to style and color. Measure customer for size of eyeglasses and coordinate frames with facial and eye measurements and optical prescription. Prepare work order for optical laboratory containing instructions for grinding and mounting lenses in frames; verify exactness of finished lens spectacles. Adjust frame and lens position to fit client. May shape or reshape frames. Include Contact Lens Opticians.		325143
PHARMACISTS (REGISTERED PHARMACISTS; DRUGGISTS; ETC.): Compound and dispense medications following prescriptions issued by physicians, dentists or other authorized medical practitioners.	R&D + Non R&D = R&D Only	325173 325175
DIETITIANS AND NUTRITIONISTS (PUBLIC HEALTH NUTRITIONISTS; THERAPEUTIC DIETICIANS; CLINICAL DIETITIANS; CHIEF DIETICIANS; ETC.): Organize, plan, and conduct food service or nutritional program to assist in promotion of health and control of disease. May administer activities of department providing quantity food service. May plan, organize, and conduct programs in nutritional research.	R&D + Non R&D = R&D Only	325213 325215
DIETETIC TECHNICIANS: Provide service in assigned areas of food service management. Teach principles of food and nutrition and provide dietary counseling under direction of Dietitians.	R&D + Non R&D = R&D Only	325233 325235

EMPLOYMENT BY OCCUPATION

Occupations	Number of Employees	Office Cod
● *OTHER HEALTH PROFESSIONALS, PARAPROFESSIONALS, AND TECHNICIANS*		
MEDICAL AND CLINICAL LABORATORY TECHNOLOGISTS (MICROBIOLOGY TECHNOLOGISTS; CHIEF MEDICAL TECHNOLOGISTS; HEMOTOLOGY TECHNOLOGISTS; CYTOTECHNOLOGISTS; BIOCHEMISTRY TECHNOLOGISTS; ETC.; EXCLUDE DENTAL TECHNOLOGISTS): Perform a wide range of complex procedures in the general areas of the clinical laboratory or perform specialized procedures in such areas as cytology, histology, and microbiology. Duties may include supervising and coordinating activities of workers engaged in laboratory testing. Include workers who teach medical technology when teaching is not their primary activity.	R&D + Non R&D = R&D Only	329023 329025
MEDICAL AND CLINICAL LABORATORY TECHNICIANS (TISSUE TECHNICIANS; BLOOD BANK TECHNICIANS; SEROLOGY TECHNICIANS; CYTOTECHNICIANS; ETC.; INCLUDE VETERINARY LABORATORY TECHNICIANS; EXCLUDE DENTAL TECHNICIANS): Perform routine tests in medical laboratory for use in treatment and diagnosis of disease. Prepare vaccines, biologicals, and serums for prevention of disease. Prepare tissue samples for Pathologists, take blood samples, and execute such laboratory tests as urinalysis and blood counts. May work under the general supervision of a Medical Laboratory Technologist.	R&D + Non R&D = R&D Only	329053 329055
DENTAL HYGIENISTS (ORAL HYGIENISTS; ETC.): Perform dental prophylactic treatments and instruct groups and individuals in the care of the teeth and mouth.		329083
MEDICAL RECORDS TECHNICIANS AND TECHNOLOGISTS (MEDICAL RECORDS SPECIALISTS; MEDICAL RECORDS LIBRARIANS; ETC.): Compile and maintain medical records of hospital and clinic patients.		329113
NUCLEAR MEDICINE TECHNOLOGISTS (RADIOISOTOPE TECHNICIANS; ETC.): Prepare, administer, and measure radioactive isotopes in therapeutic, diagnostic, and tracer studies utilizing a variety of radioisotope equipment. Prepare stock solutions of radioactive materials and calculate doses to be administered by Radiologists. Subject patients to radiation. Execute blood volume, red cell survival, and fat absorption studies following standard laboratory techniques.	R&D + Non R&D = R&D Only	329143 329145
RADIOLOGIC TECHNOLOGISTS (EXCLUDE X-RAY AND RADIOLOGIC TECHNICIANS): Take X-rays, Catscans, or administer nonradioactive materials into patient's blood stream for diagnostic and therapeutic purposes. Report workers whose primary duties are to demonstrate portions of the human body on X-ray film or fluoroscopic screen as Radiologic Technicians.	R&D + Non R&D = R&D Only	329173 329175
RADIOLOGIC TECHNICIANS (X-RAY TECHNICIANS; ETC.; EXCLUDE RADIOLOGIC TECHNOLOGISTS): Maintain and safely use equipment and supplies necessary to demonstrate portions of the human body on X-ray film or fluoroscopic screen for diagnostic purposes.	R&D + Non R&D = R&D Only	329213 329215
ELECTROENCEPHALOGRAPH TECHNICIANS AND TECHNOLOGISTS (EEG TECHNICIANS; ETC.): Measure impulse frequencies and differences in electrical potential between various portions of the brain using equipment that records data as a series of irregular lines on a continuous graph to be used by medical practitioner in diagnosing brain disorders.	R&D + Non R&D = R&D Only	329233 329235
ELECTROCARDIOGRAPH TECHNICIANS AND TECHNOLOGISTS (EKG TECHNICIANS; ETC.): Record electromotive variations in action of heart muscle using electrocardiograph machine to provide data for diagnoses of heart ailments.	R&D + Non R&D = R&D Only	329263 329265

EMPLOYMENT BY OCCUPATION

Occupations	Number of Employees	Office Co
SURGICAL TECHNICIANS (SURGICAL ORDERLIES; ETC.): Perform any combination of the following tasks either before, during, or after an operation: Prepare patient by washing, shaving, etc.; place equipment and supplies in operating room according to surgeon's instruction; arrange instruments under direction of nurse; maintain specified supply of fluid levels for use during operation, adjust lights and equipment as directed; clean operating room; count sponges, needles, and instruments used during operation; assist in administering blood, plasma, or other tansfusions or injections; and may hand surgeon instruments and supplies, hold retractors, and cut sutures as directed.	R&D + Non R&D =	329283
	R&D Only	329285
ALL OTHER HEALTH PROFESSIONALS, PARAPROFESSIONALS, AND TECHNICIANS (ULTRASOUND TECHNOLOGISTS; MENTAL HEALTH TECHNICIANS; DIALYSIS TECHNICIANS; INDUSTRIAL HYGIENISTS; ETC.): Include all other workers in this category not classified separately above. *Please identify in Section V (at the end of this form) all occupations included in this category that are numerically important and require substantial training, or are emerging due to technological changes in your industry.*	R&D + Non R&D =	329993
	R&D Only	329995
● *OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL OCCUPATIONS*		
PUBLIC RELATIONS SPECIALISTS AND PUBLICITY WRITERS (LOBBYISTS; ETC.): Include workers concerned with promoting or creating good will for individuals, groups, or organizations by writing or selecting favorable publicity material and releasing it through various communications media, preparing and arranging displays, making speeches, and performing related publicity efforts.		340083
PHOTOGRAPHERS (ADVERTISING PHOTOGRAPHERS; SCIENTIFIC PHOTOGRAPHERS; ETC.): Photograph persons, subjects, merchandise or other commercial products. Include Scientific Photographers, Aerial Photographers, and Photojournalists. May develop negatives and produce finished prints.		340233
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL WORKERS (LAWYERS; WRITERS AND EDITORS; ETC.): Include all other workers in this category not classified separately above. *Please identify in Section V (at the end of this form) all occupations included in this category that are numerically important and require substantial training, or are emerging due to technological changes in your industry.*	R&D + Non R&D =	399993
	R&D Only	399995

SALES AND RELATED OCCUPATIONS

Include in this division persons selling goods or services and others directly related to sales.......... *Organization of this section* - Occupations in this section are ordered functionally as follows: Supervising; sales of services; commodity sales; and a residual 'All Other' category.......... *Special Instructions* - Managers of smaller establishments who typically have first-line supervisory duties and engage in the same activities as the workers they supervise should be reported in the First Line Supervisors and Manager/Supervisors occupation.

CASHIERS (INCLUDE CASHIER-CHECKERS;): Receive and disburse money in establishments other than financial institutions. Usually involves use of adding machines, cash registers, and change makers.		490233
ALL OTHER SALES AND RELATED WORKERS (DEMONSTRATORS AND PROMOTERS; ETC.): Include all other workers in this category not classified separately above.		499993

EMPLOYMENT BY OCCUPATION

Occupations	Number of Employees	Office Cod
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS **Include in this division persons performing office and plant clerical tasks, such as typing, filing, computer operating, records keeping (personnel, stock, production, billing, etc.); and mail preparation and distributing.......... *Organization of this section* - Occupations in this section are ordered functionally as follows: Supervising; unique and industry specific (occupations); secretarial and general office; office machine operating; communications and mail distributing; material recording and other production related; and a residual 'All Other' category.**		
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS- CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS (TYPING SUPERVISORS; BOOKKEEPING CLERK SUPERVISORS; OFFICE MANAGERS; ETC.): Directly supervise and coordinate activities of clerical and administrative support workers. Include Office Managers. Manager/Supervisors are generally found in smaller establishments where they perform both supervisory and management functions, such as accounting, marketing, and personnel work. In addition, Manager/Supervisors may also engage, in part, in the same clerical work as the workers they supervise.		**510023**
LIBRARY ASSISTANTS AND BOOKMOBILE DRIVERS: Compile records; sort and shelve books; issue and receive library materials, such as pictures, cards, slides, phonograph records, and microfilm; and handle tape decks. Locate library materials for loan and replace material in shelving area (stacks) or files according to identification number and title. Register patrons to permit them to borrow books, periodicals, and other library materials. Bookmobile Drivers operate a bookmobile or light truck that pulls a book trailer to specific locations on a predetermined schedule and assist with providing services in mobile library.		**539023**
SECRETARIES (INCLUDE CLERICAL ADMINISTRATIVE ASSISTANTS AND EXECUTIVE SECRETARIES): Relieve officials of clerical work and minor administrative and business detail by scheduling appointments, giving information to callers, taking dictation, composing and typing routine correspondence (using typewriter or word processor), reading and routing incoming mail, and filing correspondence and other records. May perform various other assigned clerical duties. Professional Administrative Assistants should be reported with professional workers.		
MEDICAL SECRETARIES: Perform secretarial duties utilizing specific knowledge of medical terminology and hospital, clinic, or laboratory procedures. Duties include taking dictation, and compiling and recording medical charts, reports, and correspondence using a typewriter. Duties may also include preparing and sending bills to patients or recording appointments.		**551053**
ALL OTHER SECRETARIES: Include all other workers in this category not classified separately above. *Please identify in Section V (at the end of this form) all occupations included in this category that are numerically important and require substantial training, or are emerging due to technological changes in your industry.*		**551993**
STENOGRAPHERS (STENOTYPE OPERATORS; ETC.): Take dictation in shorthand of correspondence, reports, and other material and operate typewriter or word processor to transcribe dictated material. Also perform variety of clerical duties, except when working in a stenographic pool. In addition to stenographic duties, may transcribe material from sound recordings.		**553023**
RECEPTIONISTS AND INFORMATION CLERKS (APPOINTMENT CLERKS; ETC.): Answer inquiries and obtain information for general public (customers, visitors, and other interested parties) concerning activities conducted at an establishment, location of offices or persons within firm, departments within store, or services within hotel. May perform variety of other clerical duties. *Exclude* Receptionists who operate switchboards.		**553053**

EMPLOYMENT BY OCCUPATION

Occupations	Number of Employees	Office Co
TYPISTS (TRANSCRIBING MACHINE TYPISTS; MEDICAL TRANSCRIPTIONISTS; CLERK-TYPISTS; ETC.): Type letters, reports, stencils, forms, addresses, or other straight copy material from rough draft, corrected copy, or voice recording. May perform other clerical duties as assigned. Typists using word processing equipment should be reported as Typists, Word Processing.		553083
TYPISTS, WORD PROCESSING EQUIPMENT: Use word processing equipment to type letters, forms, or other straight copy material from rough draft, corrected copy, or voice recording. May perform other clerical duties as assigned. Keypunchers are classified as Data Entry Keyers. Secretaries and Stenographers may also use word processing equipment but are *excluded* from this category.		553113
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING: Compile and keep personnel records. Record data for each employee, such as address, weekly earnings, absences, amount of sales or production, supervisory reports on ability, and on date of and reason for termination. Compile and type reports from employment records. File employment records. Search employee files and furnish information to authorized persons		553143
FILE CLERKS: File correspondence, cards, invoices, receipts, and other records in alphabetical or numerical order or according to the filing system used. Locate and remove material from file when requested. May be required to classify and file new material		553213
ORDER CLERKS- MATERIALS, MERCHANDISE, AND SERVICE (MAIL ORDER CLERKS; BLOOD BANK CREDIT CLERKS; TELEPHONE ORDER CLERKS; ETC.): Receive and process incoming orders for materials, merchandise, or services such as repairs, installations, or rental of facilities. Additional duties include informing customers of receipt of order, prices, shipping dates, and delays, preparing contracts; and handling complaints. Workers who dispatch as well as take orders for services should be reported as Dispatchers.		553233
PROCUREMENT CLERKS (PURCHASING CLERKS; ETC.): Compile information and records to draw up purchase orders for procurement of material.		553263
STATISTICAL CLERKS (SALES RECORD CLERKS; MEDICAL RECORDS STATISTICAL CLERKS; ETC.): Compile and compute data according to statistical formulas for use in statistical studies. May also perform actuarial computations using algebra and trigonometry and compile charts and graphs for use by Actuaries. Include Actuarial Clerks.		553283
INTERVIEWING CLERKS, EXCEPT PERSONNEL AND SOCIAL WELFARE (REGISTRATION CLERKS; HOSPITAL ADMITTING CLERKS; SURVEY WORKERS; ETC.): Interview the public to obtain information. Duties include contacting persons by telephone, mail, or in person for the purpose of completing forms, applications, or questionnaires; asking specific questions, recording answers, and assisting persons with completing form. May include sorting, classifying, and filing forms. *Exclude* workers whose primary duty is processing applications		553323
BOOKKEEPING, ACCOUNTING, AND AUDITING CLERKS (MEDICAL VOUCHER CLERKS; BILLING CHECKERS; ETC.): Compute, classify, and record numerical data to keep sets of financial records complete. Perform any combination of routine calculating, posting, and verifying duties to obtain primary financial data for use in maintaining accounting records. May also check the accuracy of figures, calculations, and postings pertaining to business transactions recorded by other workers. Workers whose primary duty is operation of special office machines are classified as Billing, Posting, and Calculating Machine Operators.		553383
PAYROLL AND TIMEKEEPING CLERKS (COMMISSION CLERKS; ATTENDANCE CLERKS; ETC.): Compute wages and post wage data to payroll records and/or keep a daily record showing time of arrival and departure from work of employees. Compute earnings from timesheets and work tickets using calculator. Operate posting machine to compute and subtract deductions. Enter net wages on earnings record card, check stub, and payroll sheet.		553413

EMPLOYMENT BY OCCUPATION

Occupations	Number of Employees	Office Code
BILLING, COST AND RATE CLERKS (MEDICAL INSURANCE CLERKS; ACCOUNTS PAYABLE CLERKS; ETC.): Compile data, compute fees and charges, and prepare invoices for billing purposes. Duties also include computing costs and calculating rates for goods, services, and shipment of goods; posting data and keeping other relevant records. May involve use of typing, adding, calculating, and bookkeeping machines. Workers whose primary duty is operation of special office machines are classified as Billing, Posting, and Calulating Machine Operators. Workers calculating charges for passenger transportation are classified as Reservation and Transportaton Ticket Agents.		553443
GENERAL OFFICE CLERKS: Workers should be classified as General Clerks *only* if their duties are too varied and diverse to be classified in any specific office clerical occupation. Clerical duties may be assigned in accordance with the office procedures of individual establishments and may include a combination of bookkeeping, typing, stenography, office machine operation, and filing.		553473
ELECTRONIC DATA PROCESSING AND OTHER OFFICE MACHINE OCCUPATIONS: Include workers who specialize in the operation of office machines, such as computers, billing machines, copiers, addressing and mailing machines, collators, data key-entry machines, etc. NOTE: Although most office workers operate 'office machines' as part of their work, the workers in this category spend the *majority* of their time in machine operation. Typists are *excluded* from this category.		
BILLING, POSTING, AND CALCULATING MACHINE OPERATORS (BOOKKEEPING AND BILLING MACHINE OPERATORS; CHECK SORTING CLERKS; INVOICE MACHINE OPERATORS; ETC.): Operate machines that automatically perform mathematical processes, such as addition, subtraction, multiplication, division, and extraction of roots, to calculate and record billing, accounting, statistical, and other numerical data. Duties also include operating special billing machines, generally combination typing and adding machines, to prepare statements, bills, and invoices, and the operation of bookkeeping machines to copy and post data, make computations, and compile records of transactions.		560023
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT (CONSOLE OPERATORS; ETC.): Monitor and control electronic computer to process business, scientific, engineering, and other data according to operating instructions. *Exclude* operators who control peripheral equipment only.		560113
PERIPHERAL EDP EQUIPMENT OPERATORS (TABULATING MACHINE OPERATORS; ETC.): Operate computer peripheral equipment such as tape or disk drives, printers, card-to-tape or tabulating machines, sorters, or interpreters. *Exclude* Computer Operators and Data Entry Keyers.		560143
DATA ENTRY KEYERS, EXCEPT COMPOSING (KEYPUNCHERS; VERIFIER OPERATORS; ETC.): Operate keypunch or key entry devices to prepare data processing input materials on cards, disk or tape. Duties include machine entry recording, coding, or verifying alphabetic or numeric data.		560173
ALL OTHER OFFICE MACHINE OPERATORS (CHECK WRITING MACHINE OPERATORS; ETC.): Include all other workers in this category not classified separately above. *Please identify in Section V (at the end of this form) all occupations included in this category that are numerically important and require substantial training, or are emerging due to technological changes in your industry.*		560993
SWITCHBOARD OPERATORS (PBX OPERATORS; SWITCHBOARD RECEPTIONISTS; ETC.): Operate cord or cordless switchboard to relay incoming, outgoing, and interoffice calls. May supply information to callers and record messages. In addition to performing duties of Switchboard Operator, may also act as receptionist and perform routine clerical work and typing.		571023

Occupations	Number of Employees	Office Co
MATERIAL RECORDING, SCHEDULING, DISPATCHING, AND DISTRIBUTING OCCUPATIONS: Include persons concerned with dispatching equipment, materials and workers, examining orders for goods and services; receiving, storing, scheduling, issuing, shipping, requisitioning, and accounting for material in store, in use, or in production. Include occupations such as Dispatchers, Production and Planning Clerks, Expeditors, Shipping Clerks, Stock Clerks, Meter Readers, Weighers, Checkers, and Samplers. In manufacturing, these workers are often closely related to clerical functions involved with the production process.		
DISPATCHERS- POLICE, FIRE, AND AMBULANCE: Receive complaints from public concerning crimes and police emergencies and broadcast orders to police radio patrol units in vicinity to investigate. Operate radio and telephone equipment to receive reports of fires and medical emergencies and relay information or orders to proper officials.		580023
STOCK CLERKS- STOCKROOM, WAREHOUSE OR STORAGE YARD (WAREHOUSE RECORD CLERKS; STOCKROOM INVENTORY CLERKS; ETC.): Receive, store, and issue materials, equipment, and other items from stockroom, warehouse, or storage yard. Keep records and compile stock reports. *Exclude* Stockroom Laborers and workers whose primary duties involve shipping, weighing, and checking.		580233
TRAFFIC, SHIPPING, AND RECEIVING CLERKS (FREIGHT CLERKS; SHIPPING PACKERS; ETC.): Verify and keep records on incoming and outgoing shipments and prepare items for shipment. Duties include assembling, addressing, stamping, and shipping merchandise or material; receiving, unpacking, verifying, and recording incoming merchandise or material, and arranging for the transportation of products. *Exclude* Laborers, Stock Clerks, and workers whose primary duties involve weighing and checking.		580283
ALL OTHER MATERIAL RECORDING, SCHEDULING, AND DISTRIBUTING WORKERS: Include all other workers in this category not classified separately above.		580993
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS (MESSENGERS; MEDICAL RECORDS CLERKS; BILL AND ACCOUNT COLLECTORS; ETC.): Include all other workers in this category not classified separately above.		599993
SERVICE OCCUPATIONS		
Include in this division workers in occupations relating to protective service, food service, health assisting service, cleaning and building service, and personal service.......... ***Organization of this section*** **- Occupations in this section are ordered functionally as follows: Supervising; protective services; food services; health; cleaning; personal services; and a residual 'All Other' category.**		
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS- SERVICE: Include persons who directly supervise and coordinate activities of workers who provide protective services, food services, health assisting services, cleaning and building services, personal services, and other services. Manager/Supervisors are generally found in smaller establishments where they perform both supervisory and management functions, such as accounting, marketing, and personnel work. In addition, Manager/Supervisors may also engage, in part, in the same work as the workers they supervise. ***Exclude*** **work leaders who spend 20% or more of their time at tasks similar to those of employees under their supervision and report them in the occupations which are most closely related to their specific work duties.**		

EMPLOYMENT BY OCCUPATION

Occupations	Number of Employees	Office Co
HOUSEKEEPERS (HOUSECLEANER SUPERVISORS; ETC.): Supervise work activities of cleaning personnel to insure clean, orderly and attractive rooms in hotels, hospitals, educational institutions, and similar establishments. Assign duties, inspect work, investigate complaints regarding housekeeping service and equipment and take corrective action. May purchase housekeeping supplies and equipment, and take periodic inventories. May screen applicants, train new employees and recommend dismissals.		610083
ALL OTHER SERVICE SUPERVISORS AND MANAGER/SUPERVISORS (HOSPITAL CAFETERIA SUPERVISORS; ETC.): Include all other workers in this category not classified separately above.		610993
GUARDS AND WATCH GUARDS: Stand guard at entrance gate or walk about premises of business or industrial establishment to prevent theft, violence, or infractions of rules; guard property against fire, theft, vandalism, and illegal entry; direct patrons or employees and answer questions relative to services of establishment; control traffic to and from buildings and grounds.		630473
HEALTH SERVICE AND RELATED OCCUPATIONS: Include persons who assist and work under the direction of Physicians, Dentists, Nurses, Therapists, Pharmacists, and other health related professional, paraprofessional, and technical workers. Workers in these occupations provide auxiliary services, such as assisting in the care of patients, relieving nurses of heavier work, preparing treatment rooms, transporting patients, assisting therapists, and mixing pharmaceutical preparations.		
DENTAL ASSISTANTS: Assist Dentist at chair, set up patient and equipment, keep records, and perform related duties as required.		660023
MEDICAL ASSISTANTS (MORGUE ATTENDANTS; BLOOD BANK ASSISTANTS; FORMULA ROOM WORKERS; RESPIRA ORY THERAPY AIDES; ETC.; EXCLUDE PHYSICIAN'S ASSISTANTS): Perform various duties under the direction of physician in examination and treatment of patients. Prepare treatment room, inventory supplies and instruments, and set up patient for attention of physician. Hand instruments and materials to physician as directed. May schedule appointments, keep medical records, or perform secretarial duties.		660053
NURSING AIDES, ORDERLIES, AND ATTENDANTS: Work under the direction of nursing or medical staff to provide auxiliary services in care of patients. Perform duties such as answering patient's call bell, serving and collecting food trays, and feeding patients. Orderlies are primarily concerned with the care of male patients, setting up equipment, and relieving nurses of heavier work. *Exclude* Psychiatric Aides and Home Health Aides.		660083
HOME HEALTH AIDES (EXCLUDE HOMEMAKERS): Care for elderly, convalescent, or handicapped person in home of patient. Perform duties for patient such as changing bed linen; preparing meals; assisting in and out of bed; bathing, dressing, and grooming; and administering oral medications under doctors' orders or direction of nurse. *Exclude* Nurses' Aides and Homemakers.		660113
PSYCHIATRIC AIDES (EXCLUDE MENTAL HEALTH TECHNICIANS): Assist mentally ill patients working under direction of nursing and medical staff.		660143
PHYSICAL AND CORRECTIVE THERAPY ASSISTANTS AND AIDES: Prepare patient and/or administer physical therapy treatment, such as massages, heat, light and sound treatment, and traction. Instruct, motivate, and assist patients with learning and improving functional activities. Normally work under the direction of a Physical or Corrective Therapist.		660173
OCCUPATIONAL THERAPY ASSISTANTS AND AIDES: Assist Occupational Therapists in administering medically oriented occupational program to assist in rehabilitating patients in hospitals and similar institutions.		660213
AMBULANCE DRIVERS AND ATTENDANTS, EXCEPT EMERGENCY MEDICAL TECHNICIANS: Drive ambulance or assist ambulance driver in transporting sick, injured or convalescent persons. Assist in lifting patients and rendering first aid. May be required to have Red Cross first aid training certificate		660233

38

EMPLOYMENT BY OCCUPATION

Occupations	Number of Employees	Office Code
PHARMACY ASSISTANTS (PHARMACY HELPERS; ETC.): Mix pharmaceutical preparations under direction of Pharmacist. Duties include issuing medicine, labeling and storing supplies, and cleaning equipment and work areas.		660263
ALL OTHER HEALTH SERVICE WORKERS: Include all other workers in this category not classified separately above.		660993
FOOD AND BEVERAGE PREPARATION AND SERVICE OCCUPATIONS: Include occupations concerned with preparing and serving food and beverages. Include occupations such as Cooks, Cafeteria Workers, Waiters and Waitresses, and Kitchen Workers.		
WAITERS AND WAITRESSES: Serve food and/or beverages to patrons at tables. Usually take order from patron and make out check. May set table with linen and silverware and take payment from patron. May serve customers at counter as well as table. *Exclude* workers who only work at counters.		650063
FOOD SERVERS, OUTSIDE (HOSPITAL TRAY-SERVICE WORKERS; ETC.): Serve food to patrons outside of a restaurant environment, such as to patrons in hotels, hospital rooms, or cars. Workers who serve food in typical restaurant environments should be reported as Waiters and Waitresses. *Exclude* Food Venders.		650113
DINING ROOM AND CAFETERIA ATTENDANTS, AND BARTENDER HELPERS: Perform any combination of the following duties to facilitate food service: Carry dirty dishes from dining room to kitchen. Replace soiled table linens and set tables with silverware and glassware. Replenish supply of clean linens, silverware, glassware, and dishes. Supply services bar with food, such as soups, salads, and desserts. Serve ice water and butter to patrons. May also serve coffee to patrons. May wash tables.		650143
COUNTER ATTENDANTS- LUNCHROOM, COFFEE SHOP, OR CAFETERIA: Serve food to diners at counter or from a steam table. Counter Attendants who also wait tables should be reported under Waiters and Waitresses.		650173
BAKERS, BREAD AND PASTRY: Mix and bake ingredients according to recipes to produce breads, pastries, and other baked goods. Goods are produced in smaller quantities for consumption on premises or for sale as specialty baked goods.		650213
BUTCHERS AND MEAT CUTTERS: Cut, trim, and prepare carcasses and consumer-sized portions of meat for sale or for use in food service establishments. *Exclude* butchers working in slaughtering and meat packing or prepared meat establishments.		650233
COOKS, INSTITUTION OR CAFETERIA: Prepare and cook family-style meals for institutions, such as schools, hospitals, or cafeterias. Usually prepare meals in large quantities rather than to individual order. May cook for employees in office building or other large facility.		650283
COOKS, SHORT ORDER: Prepare and cook to order a variety of foods that require only a short preparation time. May take order from customers and serve patrons at counters or tables. *Exclude* Cooks, Specialty Fast Foods.		650353
FOOD PREPARATION WORKERS (KITCHEN HELPERS; ETC.): Perform a variety of food preparation duties, such as preparing cold foods and maintaining and cleaning kitchen work areas, equipment, and utensils. Perform simple tasks such as preparing shellfish or slicing meat. May brew coffee, tea, or chocolate or prepare sandwiches. Work in such places as a restaurant kitchen or delicatessen.		650383
ALL OTHER FOOD SERVICE WORKERS: Include all other workers in this category not classified separately above.		650993

EMPLOYMENT BY OCCUPATION

Occupations	Number of Employees	Office Code
CLEANING AND BUILDING SERVICE OCCUPATIONS, EXCEPT PRIVATE HOUSEHOLDS: Include workers who clean and maintain the upkeep of hotels, apartments, buildings, and similar establishments. In commercial establishments these workers may have additional duties such as tending furnaces, routine maintenance, or cleaning sidewalks. Both heavy and light cleaning workers are included. Building Service Workers also operate elevators or perform pest control. Workers whose *primary* duty is repair should be reported in the repair section in the last Division.		
MAIDS AND HOUSEKEEPING CLEANERS: Perform any combination of tasks to maintain commercial establishments, such as hotels, restaurants and hospitals, in a clean and orderly manner. Duties include making beds, replenishing linens, cleaning rooms and halls, and arranging furniture.		670023
JANITORS AND CLEANERS, EXCEPT MAIDS AND HOUSEKEEPING CLEANERS: Keep building in clean and orderly condition. Perform heavy cleaning duties, such as operating motor-driven cleaning equipment, mopping floors, washing walls and glass, and removing rubbish. May have additional duties and responsibilities, such as tending furnace and boiler, performing routine maintenance activities, notifying management of need for repairs and additions, and cleaning snow or debris from sidewalk. *Exclude* Maids and Housekeepers.		670053
40 **ELEVATOR OPERATORS:** Operate elevator to transport passengers and/or freight between floors of such buildings as offices, apartment houses, hotels, and stores.		670113
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS, EXCEPT PRIVATE HOUSEHOLDS: Include all other workers in this category not classified separately above.		670993
● *OTHER SERVICE OCCUPATIONS*		
BARBERS: Provide customers with barbering services, including cutting, trimming, shampooing, and styling hair. Also give shaves and shape contour of hair line. May sell lotions, tonics, and other cosmetic supplies.		680023
HAIRDRESSERS, HAIRSTYLISTS, AND COSMETOLOGISTS: Provide beauty services for customers, such as suggesting hair styles, cutting and treating hair and scalp, applying make-up, dressing wigs, and electrolysis. *Exclude* Shampooers, Manicurists, and Beauty School Instructors		680053
SOCIAL WELFARE SERVICE AIDES (HOMEMAKERS; ETC.): Perform a variety of tasks at places of residence. Duties include keeping house, advising families having problems with such things as nutrition, health, cleanliness and household utilities. *Exclude* Nurses' Aides and Home Health Aides		680353
CHILD CARE WORKERS (CHILD CARE ATTENDANTS; ETC.): Attend children at school, businesses, and institutions performing a variety of tasks, such as dressing, feeding, bathing, and overseeing play. *Exclude* Preschool Teachers and Teacher Aides.		680383
ALL OTHER SERVICE WORKERS (MANICURISTS; ETC.): Include all other workers in this category not classified separately above. *Please identify in Section V (at the end of this form) all occupations included in this category that are numerically important and require substantial training, or are emerging due to technological changes in your industry.*		699993

EMPLOYMENT BY OCCUPATION

Occupations	Number of Employees	Office Co
AGRICULTURAL, FORESTRY, FISHING, AND RELATED OCCUPATIONS **Include in this Division workers concerned with agricultural production, forestry, and fishing. Also included in this division are agriculture related workers such as animal caretakers and groundskeepers.......... *Organization of this section* - Occupations in this section are ordered functionally as follows: Supervising; forestry; and a residual 'All Other' category that covers fishing and agricultural production ....*Special Instructions* - Machine and manual occupations that are found in, but not unique to, the forestry industry are found in the next Division.**		
GARDENERS AND GROUNDSKEEPERS, EXCEPT FARM (YARD WORKERS; LANDSCAPE LABORERS; LAWN MOWERS; ETC.): Maintain grounds of public or private property using hand/power tools or equipment. May perform any combination of tasks, such as mowing, trimming, planting, watering, fertilizing, digging, raking, and sweeping. Additional duties may include minimal care and upkeep of buildings and equipment. May plan and execute small scale landscaping operations. May dig and prepare graves. *Exclude* Groundskeepers who disseminate information to the public and patrol public parks to enforce rules and regulations and to detect fires		**790143**
ALL OTHER AGRICULTURAL, FORESTRY, FISHING, AND RELATED WORKERS: Include all other workers in this category not classified separately above. *Please identify in Section V (at the end of this form) all occupations included in this category that are numerically important and require substantial training, or are emerging due to technological changes in your industry.*		**799993**
PRODUCTION, CONSTRUCTION, OPERATING, MAINTENANCE, AND MATERIAL HANDLING OCCUPATIONS **Include in this Division all skilled, semiskilled, and unskilled workers performing machine and manual tasks involving production, construction, operating, maintenance, repair, and material handling operations.......... *Organization of this section* - Occupations in this section are ordered functionally as follows: Supervising; inspecting; repair; construction; precision production; machine setting, operating, and tending; assembling and hand working; plant and system operation; transportation and material moving equipment operating; and helpers, laboring, and manual material moving.......... *Special Instructions* - Because of the differing experience and training required, production workers performing precision tasks (whether hand or machine) are reported separately. In addition, the remaining production worker groups are divided between machine and manual operations. The use of hand held power tools is considered a manual operation for the purpose of this survey.**		
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS- MECHANICS, INSTALLERS, AND REPAIRERS: Directly supervise and coordinate activities of mechanics, repairers and installers. May also supervise helpers assigned to these workers. Manager/Supervisors are generally found in smaller establishments where they perform both supervisory and management functions, such as accounting, marketing, and personnel work. In addition, Manager/Supervisors may also engage, in part, in the same repair work as the workers they supervise. *Exclude* work leaders who spend 20% or more of their time at tasks similar to those of employees under their supervision and report them in the occupations which are most closely related to their specific work duties.		**810023**
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS- CONSTRUCTION TRADES AND EXTRACTIVE WORKERS: Directly supervise and coordinate activities of construction or extractive workers. Manager/Supervisors are generally found in smaller establishments where they perform both supervisory and management functions, such as accounting, marketing, and personnel work. In addition, Manager/Supervisors may also engage, in part, in the same construction work as the workers they supervise. *Exclude* work leaders who spend 20% or more of their time at tasks similar to those of employees under their supervision and report them in the occupations which are most closely related to their specific work duties.		**810053**

EMPLOYMENT BY OCCUPATION

Occupations	Number of Employees	Office Cod
ALL OTHER FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS-PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED: Include all other workers in this category not classified separately above. *Please identify in Section V (at the end of this form) all occupations included in this category that are numerically important and require substantial training, or are emerging due to technological changes in your industry*		810993
INSPECTORS AND RELATED OCCUPATIONS: Include in this category workers related to this Division who inspect, test, grade, sort, or perform related tasks such as samplers. *Exclude* 1) *Management related* inspectors who enforce government or company regulations. 2) *Clerical* (recordkeeping) samplers and weighers and 3) *Agriculture* product graders and sorters - i.e. grading and sorting unprocessed food or other agricultural products		830003
MECHANICS, INSTALLERS, AND REPAIRERS (INCLUDE REPAIR TECHNICIANS; EXCLUDE MACHINE SETTERS): Include workers who repair, maintain and adjust motor vehicles, equipment, machines and tools including such work as machinery repair, auto repair and communications equipment repair. Workers may also install as well as repair equipment and machinery. Repair work may be performed on or off premises. Workers who only perform routine setting and adjusting of production machinery are *excluded* and should be reported in the later Machine Setter/Operative group. Also included are workers who do routine machinery maintenance such as oiling, changing parts (blades, rollers, etc.) and filling reservoirs.		
MACHINERY MAINTENANCE MECHANICS (POWERPLANT MECHANICS; PUMP MECHANICS; ETC.; EXCLUDE MILLWRIGHTS, MACHINE SETTERS, AND MOBILE EQUIPMENT MECHANICS): Repair and maintain the operating condition of industrial production and processing machinery, printing machinery, and refinery and pipeline distribution systems. Duties include repairing in accordance with diagrams, operating manuals, or manufacturer's specifications, machinery and mechanical equipment, such as pumps, conveyor systems, and motors. *Exclude* Millwrights and Mobile Heavy Equipment Mechanics, such as crane, bulldozer, grader, or conveyor mechanics.		851103
MAINTENANCE REPAIRERS, GENERAL UTILITY: Perform work involving two or more maintenance skills to keep the machines, mechanical equipment, and/or structure of an establishment in repair. This occupation is generally found in a small establishment where specialization in maintenance work is impractical. Duties may involve pipefitting, boilermaking, insulating, welding, machining, machine and equipment repairing, carpentry, and electrical work, as well as planning and laying out of work relating to repairs; repairing electrical and/or mechanical equipment; installing, aligning and balancing new equipment; and repairing buildings, floors, or stairs.		851323
HEATING, AIR CONDITIONING, AND REFRIGERATION MECHANICS AND INSTALLERS (FURNACE INSTALLERS; AIR CONDITIONING MECHANICS; OIL BURNER REPAIRERS; ETC.): Install and repair heating, air conditioning, and refrigerating systems. Duties include installation and repair of oil burners, hot-air furnaces, heating stoves, and similar equipment in homes and commercial establishments using hand and pipe threading tools. Also included are the installation and repair of cooling and central air conditioning systems.		859023
ELECTROMEDICAL AND BIOMEDICAL EQUIPMENT REPAIRERS: Test, adjust, and repair electromedical equipment using hand tools and meters		859083
MENDERS- GARMENTS, LINENS, AND RELATED: Repair defects, such as tears and holes, in garments, linens, curtains, and draperies and rebind cleaned blankets by hand or by operating a sewing machine.		859563
ALL OTHER MECHANICS, INSTALLERS, AND REPAIRERS: Include all other workers in this category not classified separately above. *Please identify in Section V (at the end of this form) all occupations included in this category that are numerically important and require substantial training, or are emerging due to technological changes in your industry.*		859993

42

EMPLOYMENT BY OCCUPATION

Occupations	Number of Employees	Office Cod
CONSTRUCTION TRADES AND EXTRACTIVE OCCUPATIONS, EXCEPT MATERIAL MOVING (EXCLUDE HELPERS AND LABORERS): Include in this group workers constructing, altering, and maintaining buildings, other structures, bridges, pipelines, and similar projects. The construction/maintenance work performed by these workers is found in many establishments, although the majority of these workers work for construction firms. Also include extractive workers, such as Blasters, Oil Well Drillers, and Mining Operatives. *Exclude* helpers and laborers.		
CARPENTERS: Perform the carpentry duties necessary to make or repair wooden structures, structural members, and fixtures and equipment using carpentry tools and woodworking machines. *Exclude* Cabinetmakers and Bench Carpenters.		871023
ELECTRICIANS: Install, maintain, and repair wiring, electrical equipment, and fixtures. Insure that work is in accordance with relevant codes. May read blueprints. Include Protective Signal Installers and Repairers and Street Light Servicers.		872023
PAINTERS AND PAPERHANGERS, CONSTRUCTION AND MAINTENANCE: *Painters*: Paint walls, equipment, buildings, bridges, and other structural surfaces using brushes, rollers, and spray guns. May mix colors or oils to obtain desired color or consistency. *Paperhangers*: Cover interior walls and ceilings of rooms with decorative wallpaper or fabric.		874023
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS: Assemble, install, alter and repair pipe systems (metal, plastic, ceramic, composition, etc.) that carry water, steam, air, or other liquids or gases.		875023
ALL OTHER CONSTRUCTION TRADES WORKERS (MASONS; GLAZIERS; ETC.): Include all other workers in this category not classified separately above.		878993
PRECISION PRODUCTION OCCUPATIONS (EXCLUDE PRECISION ASSEMBLERS AND REPORT THEM IN THE HANDWORKING SECTION): Include persons whose work requires a high degree of precision and usually an ability to interpret detailed specifications and instructions and to use independent judgement and knowledge gained through experience and training. Precision work may be accomplished either by hand or hand-held tools (or) by using various types of machinery. Normally substantial training, either classroom or on the job, is required to reach the 'journey' level. In most cases, training of six months to several years or more is required. Precision assembling occupations are found in the Hand Working (including assemblers and fabricators) section found later in the form. Precision Inspectors and Testers should be reported in the earlier Inspecting category. The occupations in this category are ordered according to material: metal, wood, textile, printing, food and a residual 'all other' category.		
MACHINISTS: Set up and operate machine tools and fit and assemble parts to make or repair metal parts, mechanisms, tools or machines of an establishment applying knowledge of mechanics, shop mathematics, metal properties, and layout machining procedures. Study specifications, such as blueprints, sketch, or description of part to be replaced, and plan sequence of operations.		891083
PRECISION OPTICAL GOODS WORKERS (PRECISION LENS POLISHERS; ETC.): Cut, grind, and polish eyeglasses, contact lenses, or other precision optical elements according to prescription or other specifications. Assemble and mount lenses into frames and process other optical elements according to specifications. These occupations usually involve the use of precision machines and instruments. Include such occupations as Precision Lens Polishers or Grinders, Centerer-Edgers and Lens Mounters. *Exclude* rough grinding of optical elements.		899173

43

EMPLOYMENT BY OCCUPATION

Occupations	Number of Employees	Office Code
PRECISION DENTAL LABORATORY TECHNICIANS: Perform precision tasks, such as construction and repair of full or partial dentures or dental appliances or apparatus, following prescriptions or specifications of Dentists or Orthodontists. May also provide analytical and diagnostic services. Include such workers as Dental Ceramists, Crown and Bridge Technicians, and Orthodontic Technicians. *Exclude* Assistants, Bite-Block Makers, Opaquers, and Denture and Coiler Packers.		899213
MEDICAL APPLIANCE MAKERS (ORTHOTICS TECHNICIANS; PROSTHETICS TECHNICIANS; ARCH SUPPORT TECHNICIANS; ETC.): Perform precision tasks such as constructing, fitting, maintaining, and repairing medical supportive devices (braces, artificial limbs, arch supports, and other surgical and medical appliances) following the prescriptions and specifications of Orthotists, Prosthetists, or Podiatrists. May instruct patients in the use of the device.		899233
ALL OTHER PRECISION WORKERS (CABINETMAKERS; SHEETMETAL WORKERS; ETC.): Include all other workers in this category not classified separately above. *Please identify in Section V (at the end of this form) all occupations included in this category that are numerically important and require substantial training, or are emerging due to technological changes in your industry.*		899993
MACHINE SETTERS, SET-UP OPERATORS, OPERATORS, AND TENDERS: Include in this group workers who set up, operate, or tend equipment or machinery (usually large production machinery). In the following occupational categories workers who set up or set up & operate machines are grouped separately from workers who operate or tend machines...........The occupations in this section are organized according to the material being processed and ordered as follows: metal & plastic (working, fabricating, and processing), wood, printing and related, textile, and a residual (other) category. Occupations that do not *primarily* involve metal and plastic working machines, wood working machines, printing and related machines, or textile machines should be reported in the residual (other) category...........NOTE: *Excluded* from this category are 1) Transportation and Material Moving occupations; 2) Handworking occupations - workers using hand or hand-held power tools; and 3) Plant and System Operators. The appropriate groups for these workers follow this section.		
SEWING MACHINE OPERATORS, NON-GARMENT (OVEREDGE SEWERS; ETC.): Operate or tend sewing machines to join together, reinforce, decorate, or perform related sewing operations in the manufacture of nongarment products, such as upholstery, draperies, linens, carpets, and mattresses.		927213
LAUNDRY AND DRYCLEANING MACHINE OPERATORS AND TENDERS, EXCEPT PRESSING: Operate or tend washing or drycleaning machines to clean or dryclean commercial, industrial, or household articles, such as suede, leather, and cloth garments, furs, blankets, draperies, fine linens, rugs, and carpets.		927263
PRESSING MACHINE OPERATORS AND TENDERS- TEXTILE, GARMENT, AND RELATED MATERIALS (GARMENT MANGLE OPERATORS; ETC.): Operate or tend pressing machines, such as hot-head pressing, steam pressing, automatic pressing, ironing, plunger pressing, and hydraulic pressing machines, to press and shape articles, such as leather, fur, and cloth garments, or drapes, slipcovers, handkerchiefs, and millinery. *Exclude* delicate fabric (Precision) Pressers.		927283
BOILER OPERATORS AND TENDERS, LOW PRESSURE (LOW PRESSURE FIRERS; ETC.): Operate or tend low pressure stationary steam boilers and auxiliary steam equipment, such as pumps, compressors and air conditioning equipment, to supply steam heat for office buildings, apartment houses, or industrial establishments; to maintain steam at specified pressure aboard marine vessels; or to generate and supply compressed air for operation of pneumatic tools, hoists, and air lances.		929263
ALL OTHER MACHINE SETTERS AND SET-UP OPERATORS: Include all other workers in this category not classified separately above. *Please identify in Section V (at the end of this form) all occupations included in this category that are numerically important and require substantial training, or are emerging due to technological changes in your industry.*		929973

44

EMPLOYMENT BY OCCUPATION

Occupations	Number of Employees	Office Code
ALL OTHER MACHINE OPERATORS AND TENDERS: Include all other workers in this category not classified separately above.		929983
HAND WORKING OCCUPATIONS, INCLUDING ASSEMBLERS AND FABRICATORS: Include workers who perform hand assembling, fabricating, finishing or other handwork. This category includes a wide variety of handwork in addition to assembling, such as welding, cutting, molding, painting, grinding and sewing. Although precision assembling is included in this category, workers performing other types of *precision* handwork such as patternmaking, precision molding, layout, tailoring, design painting and butchering are *excluded* and should be reported in the earlier 'Precision' category.		
SEWERS, HAND (HAND STITCHERS; ETC.): Sew, join, reinforce, or finish, usually with needle and thread, any of a wide variety of manufactured items, such as shoes, hats, umbrellas, rugs, baseballs, and hosiery. Include such occupations as Weavers, Stitchers, and Finishers. Hand Sewers who repair articles should be reported with Menders.		939233
ALL OTHER HAND WORKERS (PRESSERS, HAND; ETC.): Include all other workers in this category not classified separately above. *Please identify in Section V (at the end of this form) all occupations included in this category that are numerically important and require substantial training, or are emerging due to technological changes in your industry.*		939993
45 **PLANT AND SYSTEM OCCUPATIONS: Include workers who control or operate systems of machines or entire processes through use of control panels or centralized controls. Plant and System Operators control such systems as chemical, petroleum, or water treatment systems.**		
STATIONARY ENGINEERS (OPERATING ENGINEERS-STATIONARY ENGINES; ETC.): Operate and maintain stationary engines and mechanical equipment to provide utilities for a businesse's buildings or industrial processes. Operate equipment such as steam engines, generators, motors, turbines, and steam boilers.		950323
ALL OTHER PLANT AND SYSTEM OPERATORS: Include all other workers in this category not classified separately above. *Please identify in Section V (at the end of this form) all occupations included in this category that are numerically important and require substantial training, or are emerging due to technological changes in your industry.*		950993
TRANSPORTATION AND MATERIAL MOVING MACHINE AND VEHICLE OPERATORS (EXCLUDE AMBULANCE DRIVERS - SEE SERVICE DIVISION): Include in this group workers who operate or control vehicles used to transport people or materials. Also included are transportation related workers such as Bridge Tenders, Service Station Attendants, and Parking Lot Attendants. Material moving also includes operation of equipment such as conveyors, pumps, cranes, and hoists.		
● *TRANSPORTATION EQUIPMENT OPERATORS*		
TRUCK DRIVERS, LIGHT- INCLUDE DELIVERY AND ROUTE WORKERS: Drive truck with a capacity under 3 tons. May drive light truck to deliver or pick up merchandise and load and unload truck. Workers who sell as well as deliver merchandise should be reported with Driver/Sales Workers.		971053
ALL OTHER MOTOR VEHICLE OPERATORS: Include all other workers in this category not classified separately above.		971993
ALL OTHER TRANSPORTATION AND RELATED WORKERS: Include all other workers in this category not classified sepa ly above.		978993

EMPLOYMENT BY OCCUPATION

Occupations	Number of Employees	Office Cod
● *MATERIAL MOVING EQUIPMENT OPERATORS*		
INDUSTRIAL TRUCK AND TRACTOR OPERATORS (FRONT END LOADER OPERATORS; ELECTRIC TRUCK OPERATORS; FORKLIFT TRUCK OPERATORS; ETC.): Operate gasoline or electric powered industrial trucks or tractors equipped with fork lift, elevated platform, or trailer hitch to move materials in an establishment, warehouse, storage yard, factory, or at a construction site. *Exclude* Logging Tractor Operators		979473
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS: Include all other workers in this category not classified separately above.		979993
HELPERS AND RELATED WORKERS **HELPERS, LABORERS, AND MATERIAL MOVERS, HAND- EXCLUDE AGRICULTURE AND FORESTRY LABORERS:** Include workers performing *non machine* tasks generally of a routine nature. These workers help the production, construction, operating, and maintenance workers covered in the earlier sections. Although they do not operate or tend the machinery or equipment directly, these workers assist in the work of the establishment by machine feeding and offbearing, moving materials (manually), or loading and unloading. They may also clean and wash vehicles and equipment. Handworkers (see earlier section) are distinguished from the workers in this group because they are involved directly in the making of a product.		980003

OVERALL TOTAL OF EMPLOYMENT
(Sum of non-shaded boxes)
(This overall total employment should agree with Item D on page 1.)

46

PLEASE CONTINUE TO
SECTION V

SECTION V. – "ALL OTHER" CATEGORIES

Please use the space below to identify workers reported in any "All Other" category who are in occupations that are numerically important, require substantial training, or are emerging due to technological changes in your industry

Office Code of "All Other" Category in which Workers are Reported	Job Title and Short Description of Job Duties	Number of Employees	For Office Use Only

OFFICE USE ONLY	FIPS State Code	Schedule Number	Survey Code	SIC	Unit Total Employment	Auxiliary Unit Code	Reviewed By	Date

S3808-2.4-U

COMMONWEALTH OF MASSACHUSETTS

DES

DIVISION OF EMPLOYMENT SECURITY

Michael S. Dukakis, Governor
Evelyn F. Murphy, Secretary, Economic Affairs
Kristin S. Demong, Director, DES

OCCUPATIONS IN SERVICES, FINANCE, INSURANCE, REAL ESTATE AND CONSTRUCTION

1984

Prepared by:
Massachusetts Division of
Employment Security
Economic Research & Analysis Service
Occupational Employment
Statistics Unit
Elliot A. Winer, Chief

November, 1985

FOREWORD

The Occupational Employment Statistics Program is part of a Federal-State cooperative program involving State Employment Security Agencies (SESA's) as well as the U.S. Department of Labor, Bureau of Labor Statistics (BLS). It was designed to meet the needs of economists, employment specialists, educators, counselors and others for current data on employment by occupations as well as projected data on employment by occupation and industry.

This publication is the twenty-first in a series on Current Occupational Profiles of Massachusetts Industries. The information is used in updating the industry-occupation matrix and as a data base for projecting future employment trends. Copies of all previous survey publications are available for reference in our Research Library.

Our sincere appreciation is extended to the many employers who participated in this survey, without whose support this labor market information would not be available. Acknowledgement for support is also made to the U. S. Department of Labor and in particular to the Bureau of Labor Statistics - both on national and regional levels - for their technical support. We also wish to recognize the contribution of the data processing department, the reproduction unit, and methods and procedures.

Table Of Contents

Page

Foreword.. ii

Methodology..................................... 1

Scope of Survey................................. 3

Nonmetallic Minerals Except Fuel (SIC 14)............. 4

Construction (SIC 15-16-17)........................... 8

Heavy Construction Contractors (SIC 16)............... 12
  Highway and Street Construction (SIC 161)........... 15
  Heavy Construction Except Highway (SIC 162)......... 17
Special Trade Contractors (SIC 17).................... 18
  Painting, Paper Hanging, Decorating (SIC 172)....... 22
  Electrical Work (SIC 173)........................... 23
  Masonry, Stonework, and Plastering (SIC 174)........ 24
  Carpentering and Flooring (SIC 175)................. 25
  Roofing and Sheet Metal Work (SIC 176).............. 26
  Concrete Work (SIC 177) 27
  Misc. Special Trade Contractors (SIC 179)........... 28

Banking (SIC 60)...................................... 30
  Federal Reserve Banks (SIC 601)..................... 35
  Commercial and Stock Savings Banks (SIC 602)........ 36
  Mutual Savings Banks (SIC 603)...................... 38

Credit Agencies Other Than Banks (SIC 61)............. 40
  Savings and Loan Association (SIC 612).............. 44
  Personal Credit Institutions (SIC 614).............. 46
  Mortgage Bankers and Brokers (SIC 616).............. 48

Security and Commodity Brokers and Services (SIC 62)... 49
  Security Brokers and Dealers (SIC 621).............. 52
  Security and Commodity Services (SIC 628)........... 53

Insurance (SIC 63).................................... 55
  Life Insurance(SIC 631)............................. 60
  Medical Service and Health Insurance (SIC 632)...... 63
  Fire, Marine, and Casualty Insurance (SIC 633)...... 66

Table Of Contents
(continued)

Page

Insurance Agents, Brokers and Services (SIC 64)........ 67

Real Estate (SIC 65)................................ 71
  Real Estate Operators and Lessors (SIC 651)......... 75
  Subdividers and Developers (SIC 655)................ 77

Hotels and Other Lodging Places (SIC 70)............... 79
  Hotels, Motels, and Tourist Courts (SIC 701)........ 84

Personel Services (SIC 72)............................. 87
  Laundry, Cleaning & Garment Services (SIC 721)...... 91
  Beauty Shops (SIC 723).............................. 92
  Funeral Service and Crematories (SIC 726)........... 93
  Miscellaneous Personal Services (SIC 729)........... 94

Business Services (SIC 73)............................ 95
  Advertising (SIC 731)............................... 99
  Credit Reporting and Collection (SIC 732)........... 100
  Computer and Data Processing Services (SIC 737)..... 101
  Miscellaneous Business Services (SIC 739)........... 102

Automotive Repair, Services, and Garages (SIC 75)...... 104
  Automotive Rentals, without Drivers (SIC 751)....... 107
  Automotive Repair Shops (SIC 753)................... 108
  Automotive Services, Except Repair (SIC 754)........ 109

Miscellaneous Repair Service (SIC 76).................. 110
  Electrical Repair Shops (SIC 762)................... 114
  Miscellaneous Repair Shops (SIC 769)................ 115

Motion Pictures (SIC 78)............................... 117
  Motion Picture Theaters (SIC 783)................... 121

Amusement and Recreation Services (SIC 79)............. 122
  Producers, Orchestras, Entertainers (SIC 792)....... 126
  Bowling and Billiard Establishments (SIC 793)....... 127
  Commercial Sports (SIC 794)......................... 128
  Misc. Amusement, Recreational Services (SIC 799).... 129

Health Services, Except Hospitals (SIC 80)............. 130
  Offices of Physicians (SIC 801)..................... 135
  Offices of Dentists (SIC 802)....................... 136
  Offices of Other Health Practitioners (SIC 804)..... 137

Table of Contents
(continued)

Page

Health Services, Except Hosptials (SIC 80) continued

- Nursing and Personal Care Facilities (SIC 805)...... 138
- Medical and Dental Laboratories (SIC 807)........... 141
- Health and Allied Services N.E.C. (SIC 809)......... 142

Legal Services (SIC 81).............................. 144

Social Services (SIC 83)............................. 147
- Individual and Family Services (SIC 832)............ 152
- Job Training and Related Services (SIC 833)......... 155
- Child Care Services (SIC 835)....................... 157
- Residential Care (SIC 836).......................... 158
- Social Services N.E.C. (SIC 839).................... 160

Museums, Art Galleries, Botanical and Zoological Gardens (SIC 84).................................. 161
- Museums and Art Galleries (SIC 841)................. 165

Membership Organizations (SIC 86)..................... 167
- Business Associations (SIC 861)..................... 172
- Civic and Social Associations (SIC 864)............. 173
- Membership Organizations N.E.C...................... 175

Miscellaneous Services (SIC 89)....................... 176
- Engineering and Architectural Services (SIC 891).... 181
- Noncommercial Research Organizations (SIC 892)...... 184

METHODOLOGY

The Sample

The second quarter 1984 report (ES 202) of employment and wages covered by the Massachusetts Employment Security Law was used as a sampling frame for the Occupational Employment Statistics survey of nonmanufacturing establishments.

The sampling frame was stratified by three-digit SIC's (Standard Industrial Classification) and by nine employment size classes. Establishments with less than four employees were excluded from the sample and all units with employment of two hundred and fifty or more were automatically included. All other establishments were subject to sample selection on a random basis, with the units in large size classes having a proportionately higher chance of selection. Each unit was given a weight according to the proportion of firms selected in each size class. The sample included 4,402 establishments with a benchmark of 331,695.

The Survey and Responses

Each establishment was mailed a survey schedule; telephone calls and personal visits were made where the date was critical for calculating valid estimates. As many as three follow-up schedules were mailed to nonrespondents. Of the 4,402 establishments in the survey, replies were received from 3,345 or 75.9 percent. After manual editing and mechanical (computer) screening, 3,215 responses with total employment of 255,452 were determined useable, 78.09 percent of sample employment.

The Estimating Procedure

All useable responses were stratified into seven size groups, by industry. Reported total employment (or the summed occupational employment) from each useable response was multiplied by the weight assigned during sample selection. These industry data were then divided into the employment in the ES-202 report for the reference month of the survey (stratified by corresponding size class cells). The result produced by the procedure is known as the benchmark factor. This factor was then applied to the occupational data, thus accounting for non-response. These occupational estimates were than summed across size classed to industry totals.

Sampling Error

Sampling error is an arithmetic measure of the precision of the estimate. It is the difference between the estimate computed from the sample and the result that would have been obtained if the same methods were used to collect identical information from the universe. The relative errors listed in this report are the sampling errors of each occupation expressed as a percent of that occupational estimate. The relative errors shown are such that the chances are 2 out of 3 that the results of collecting identical information from the entire population would not differ by more than the percent of relative error shown; the chances are 19 out of 20, that the results of collecting identical information from the entire population would not differ by more than twice the percent shown. For example, it is estimated in this report that there are 2,500 Financial Managers employed in SIC 60 Banking, making up 4.61 percent of total employment in the industry. Thus, the chances are about 68 out of 100 that the results of comparable full scale data collection would differ by less than 450 (18 percent) from the 2,500 estimated; similarly the estimated 4.61 percent of total employment would differ by less than 0.83 percent of total employment.

Nonsampling Error

The results of this survey are subject to biases and other nonsampling errors. Although careful editing and screening steps were taken, responding establishments may account for some errors in computations and processing, as well as placing workers in a wrong occupation. The nonrespondents are a source of nonsampling error for which measures are not available but are reflected in the estimating procedure.

Occupational Classification

The new OES occupational classification system was introduced with the 1983 survey and is closely related to the 1980 Standard Occupational Classification system (SOC). Due to the revision of the OES occupational system the occupations from this 1984 survey cycle are not completely comparable to those from the 1981 survey cycle. In those industries where the new occupational system caused dramatic fluctuations, major occupational categories were combined. This allows the occupational structure of the survey to be comparable to the last survey round.

SCOPE OF SURVEY

This survey covered the following Standard Industrial Classifications, as defined in the 1972 Manual. For your convenience listed below are the two digit SIC Codes with their short titles.

SIC CODE	SHORT TITLES
10-14	Mining, Oil and Gas Extraction
15	General Building Contractors
16	Nonbuilding Contractors
17	Special Trades Contractors
60	Banking
61	Credit Agencies
62	Security, Commodity Brokers
63	Insurance
64	Insurance Agents
65	Real Estate
66	Combined Real Estate and Insurance
67	Investment Companies
70	Hotels and Lodging Places
72	Personal Services
73	Business Services
75	Auto Repair and Services
76	Miscellaneous Repair
78	Motion Pictures
79	Amusement and Recreation
80 ex. 806	Health (except Hospitals)
81	Legal Services
83	Social Services
84	Museums
86	Membership Organizations
89	Miscellaneous Services

Nonmetallic Minerals Except Fuel (SIC 14)

This industry includes establishments primarily engaged in mining or quarrying, developing mines, or exploring for nonmetallic minerals, except fuels. Also included are certain well and brine operations, and primary preparation plants, such as those engaged in crushing, grinding, washing, or other concentration. The firms in this industry can be divided into the following groups:

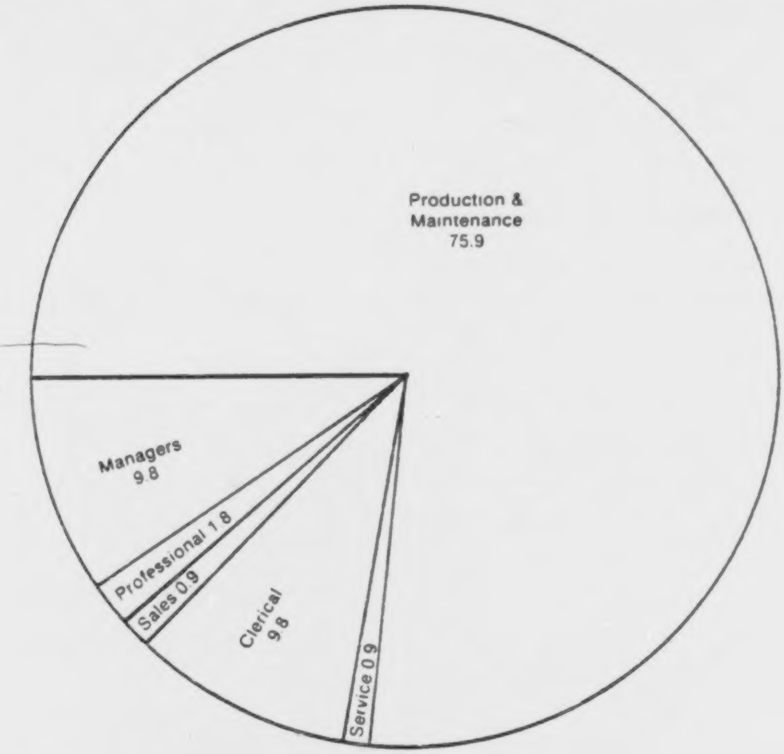
Dimension Stone (SIC 141)
Crushed and Broken Stone, including Riprap (SIC 142)
Sand and Gravel (SIC 144)
Clay, Ceramic, and Refractory Minerals (SIC 145)
Chemical and Fertilizer Mineral Mining (SIC 147)
Nonmetallic Minerals (Except Fuels) Services (SIC 148)
Miscellaneous Nonmetallic Minerals Except Fuels (SIC 149)

Mining in Massachusetts accounts for approximately 1,100 jobs and more than 72 percent of those jobs are in the industry: mining, quarrying, nonmetal minerals. The employment in this industry has virtually remained stable at 1,060 jobs for 1984 and 1,040 jobs for 1981, a 1.9 percent change.

The occupational category-production, construction, and maintenance occupations- employs the bulk of this industry's work force, 75.9 percent. More than one out of every four persons employed in this industry is a heavy equipment truck driver.

NONMETALIC MINERALS EXCEPT FUEL (SIC 14)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Truck Drivers; Heavy or Tractor Trailer	310
2.	Excavating and Loading Machine Operators	100
3.	Mining Quarry and Oil and Gas Welldrilling Managers	70
4.	Crushing, Grinding, Mixing Machine Operators and Tenders	60
5.	All Other Construction Trades Workers	50
6.	Bookkeeping, Accounting and Auditing Clerks	40
7.	All Other Mining Machine Operators	40
8.	All Other Extractive Workers, except Helpers	40
9.	Weighers, Measurers, Checkers, and Samplers	30
10.	Supervisors - Construction and Extractive Workers	30

These 10 occupational categories make up 68.8% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
NONMETALIC MINERALS EXCEPT FUEL
SIC = 14
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,120	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	110	9.82	N/A
FINANCIAL MANAGERS	20	1.79	21
MINING QUARRY & OIL & GAS WELLDRILLING MGRS	70	6.25	50
GENERAL MANAGERS AND TOP EXECUTIVES	10	0.89	N/A
ALL OTHER MANAGERS AND ADMINISTRATORS	20	1.79	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	20	1.79	N/A
ACCOUNTANTS AND AUDITORS	20	1.79	30
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	10	0.89	N/A
SALES AND RELATED OCCUPATIONS	10	0.89	N/A
ALL OTHER SALES AND RELATED WORKERS	10	0.89	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	110	9.82	N/A
SECRETARIES	20	1.79	31
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	40	3.57	25
GENERAL OFFICE CLERKS	20	1.79	32
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS	30	2.68	18
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.89	N/A
SERVICE OCCUPATIONS	10	0.89	N/A
ALL OTHER SERVICE WORKERS	10	0.89	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	850	75.89	N/A
SUPERVISORS-CONSTRUCTION & EXTRACTIVE WORKERS	30	2.68	34
MACHINERY MAINTENANCE WORKERS	10	0.89	33
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	2.68	23
AUTOMOTIVE MECHANICS	10	0.89	22
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	20	1.79	16
MOBILE HEAVY EQUIP MECHANICS, EXCEPT ENGINES	10	0.89	17
ALL OTHER CONSTRUCTION TRADES WORKERS	50	4.46	N/A
EARTH DRILLERS, EXCEPT OIL AND GAS	10	0.89	22
ALL OTHER MINING MACHINE OPERATORS	40	3.57	N/A
ALL OTHER EXTRACTIVE WORKERS, EXCEPT HELPERS	40	3.57	N/A
FURNACE, KILN, OVEN, DRIER, KETTLE OPERATORS	10	0.89	50
CRUSHING,GRINDING,MIXING MACH OPER & TENDERS	60	5.36	16
WELDERS AND CUTTERS	20	1.79	32
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	310	27.68	8
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.89	N/A
EXCAVATING AND LOADING MACHINE OPERATORS	100	8.93	18
LOADING MACHINE OPERATORS, UNDERGROUND MINING	10	0.89	24
GRADER, DOZER, AND SCRAPER OPERATORS	10	0.89	22
CONVEYOR OPERATORS AND TENDERS	10	0.89	17
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	20	1.79	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
NONMETALIC MINERALS EXCEPT FUEL
SIC = 14
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	30	2.68	43
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	10	0.89	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	20	1.79	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Construction

This division includes establishments (or kind-of-activity units) primarily engaged in construction. The term "construction" includes new work, additions, alterations, and repair. Three broad types of construction activity are covered:

Building Construction-General Contractors & Operative Builders (SIC 15)
Construction Other than Building Construction-General Contractors (SIC 16)
Construction-Special Trade Contractors (SIC 17)

Since 1981, construction in Massachusetts has been one of the fastest growing sectors, increasing its share of total wage and salary employment from 2.9 percent in 1981 to 3.4 percent in 1984.

	1981		1984	
	Employment	Percent	Employment	Percent
Construction Total	77,000	100.0	95,900	100.0
Building Construction	21,350	27.7	28,300	29.5
General Contractors	8,450	11.0	9,200	9.6
Special Trade Contractors	47,200	61.3	58,400	60.9

The growth we see in these construction industries is a reversal of the long term downward trend that was evident in the seventies. A number of factors are boosting this growth such as: the maintenance and repair of our state highways, streets, and bridges; the renovation of commercial and industrial buildings; and the remodeling of our home environment.

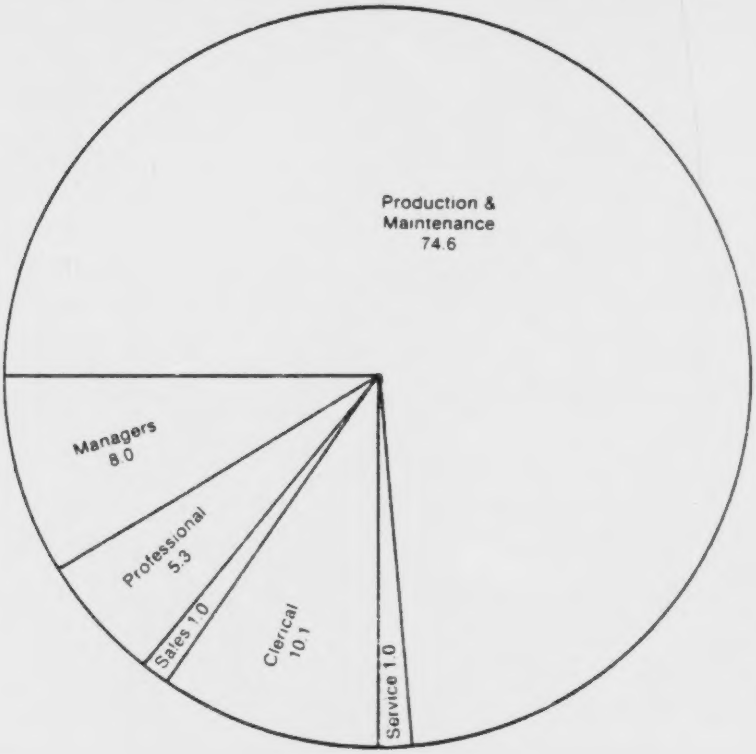
Nearly one out of every four workers in construction is employed in the production, construction, and maintenance occupational category. The bulk of this employment is represented by the highly skilled trade occupations: carpenters,electricians, plumbers etc .

Below you can see a comparison of the major occupational categories from our last survey round conducted in 1981.

	Distribution	
	1984	1981
Managerial and Administrative	7.98	11.37
Professional, Paraprofessional, Technical	5.29	6.00
Sales and Related	0.92	1.93
Clerical and Administrative Support	10.14	8.98
Service and Agricultural Related	1.06	0.63
Production, Construction & Maintenance	74.61	71.09

CONSTRUCTION

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Carpenters	9,950
2.	Electricians	7,670
3.	All Other Construction Trades Workers	5,870
4.	Construction Managers	4,640
5.	Plumbers, Pipefitters, and Steamfitters	4,280
6.	Helpers - Carpenters and Related	3,690
7.	Supervisors - Construction and Extractive Workers	3,470
8.	Secretaries	3,360
9.	All Other Helpers, Laborers, Material Movers Hand	3,340
10.	Painters, Paperhangers, Construction and Maintenance	3,200

These 10 occupational categories make up 52.0% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
CONSTRUCTION

REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	95,150	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	7,590	7.98	N/A
FINANCIAL MANAGERS	1,950	2.05	15
CONSTRUCTION MANAGERS	4,640	4.88	11
GENERAL MANAGERS AND TOP EXECUTIVES	670	0.70	39
ALL OTHER MANAGERS AND ADMINISTRATORS	330	0.35	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	5,030	5.29	N/A
ACCOUNTANTS AND AUDITORS	530	0.56	47
ALL OTHER FINANCIAL SPECIALISTS	60	0.06	N/A
COST ESTIMATORS	2,260	2.38	28
ALL OTHER MANAGEMENT SUPPORT WORKERS	280	0.29	N/A
ALL OTHER ENGINEERS	900	0.95	N/A
DRAFTERS	350	0.37	40
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	510	0.54	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	90	0.09	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	50	0.05	N/A
SALES AND RELATED OCCUPATIONS	880	0.92	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	700	0.74	35
ALL OTHER SALES AND RELATED WORKERS	180	0.19	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	9,650	10.14	N/A
SECRETARIES	3,360	3.53	17
TYPISTS	550	0.58	23
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	2,540	2.67	11
PAYROLL AND TIMEKEEPING CLERKS	420	0.44	23
GENERAL OFFICE CLERKS	1,990	2.09	24
ALL OTHER OFFICE MACHINE OPERATORS	110	0.12	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	310	0.33	36
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	80	0.08	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	300	0.32	N/A
SERVICE OCCUPATIONS	860	0.90	N/A
ALL OTHER SERVICE WORKERS	860	0.90	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	150	0.16	N/A
ALL OTHER AGRIC,FOR,FISH, & RELATED WORKERS	150	0.16	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	70,990	74.61	N/A
SUPERVISORS-CONSTRUCTION & EXTRACTIVE WORKERS	3,470	3.65	17
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	180	0.19	N/A
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	10	0.01	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	760	0.80	37
AUTOMOTIVE MECHANICS	90	0.09	38
MOBILE HEAVY EQUIP MECHANICS, EXCEPT ENGINES	480	0.50	41

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
CONSTRUCTION

REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	490	0.51	N/A
ALL OTHER ELEC & ELECTR EQUIP MECH,REP,INSTAL	180	0.19	N/A
HEATING, A/C & REFRIG MECHANICS & INSTALLERS	2,590	2.72	31
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	580	0.61	N/A
CARPENTERS	9,950	10.46	18
DRYWALL INSTALLERS	1,640	1.72	21
TAPERS	570	0.60	37
ELECTRICIANS	7,670	8.06	21
BRICK MASONS	1,790	1.88	27
CONCRETE AND TERRAZZO FINISHERS	1,100	1.16	32
PLASTERERS AND STUCCO MASONS	610	0.64	37
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	3,200	3.36	12
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	4,280	4.50	33
PAVING,SURFACING,TAMPING EQUIPMENT OPERATORS	640	0.67	33
INSULATION WORKERS	740	0.78	31
ROOFERS	1,960	2.06	24
GLAZIERS	880	0.92	43
FENCE ERECTORS	510	0.54	44
ALL OTHER CONSTRUCTION TRADES WORKERS	5,870	6.17	N/A
ALL OTHER MINING MACHINE OPERATORS	80	0.08	N/A
SHEET METAL WORKERS	1,500	1.58	32
ALL OTHER PRECISION WORKERS	300	0.32	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	310	0.33	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	30	0.03	N/A
WELDERS AND CUTTERS	250	0.26	45
ALL OTHER HAND WORKERS	110	0.12	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	1,130	1.19	28
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	830	0.87	21
ALL OTHER TRANSPORTATION AND RELATED WORKERS	10	0.01	N/A
GRADER, DOZER, AND SCRAPER OPERATORS	1,020	1.07	48
OPERATING ENGINEERS	1,110	1.17	42
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	1,310	1.38	N/A
HELPERS-BRICK & STONE MASON,HARD TILE SETTERS	1,320	1.39	24
HELPERS-CARPENTERS AND RELATED	3,690	3.88	22
HELPERS-ELEC & POWERLINE TRANSMISSION INSTAL	1,940	2.04	42
HELPERS-PAINT, PAPERHANGER, PLASTER, & STUCCO	750	0.79	33
HELPERS-ROOFERS	620	0.65	36
HELPERS-ALL OTHER CONSTRUCTION TRADES	830	0.87	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	310	0.33	47
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	3,340	3.51	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Heavy Construction Contractors (SIC 16)

This industry incldues general contractors engaged in heavy construction (including new work, additions, improvements, maintenance and repair such as highways and streets, bridges, sewers, railroads, irrigation projects, flood control projects and marine construction. The firms in this industry can be divided into the following groups:

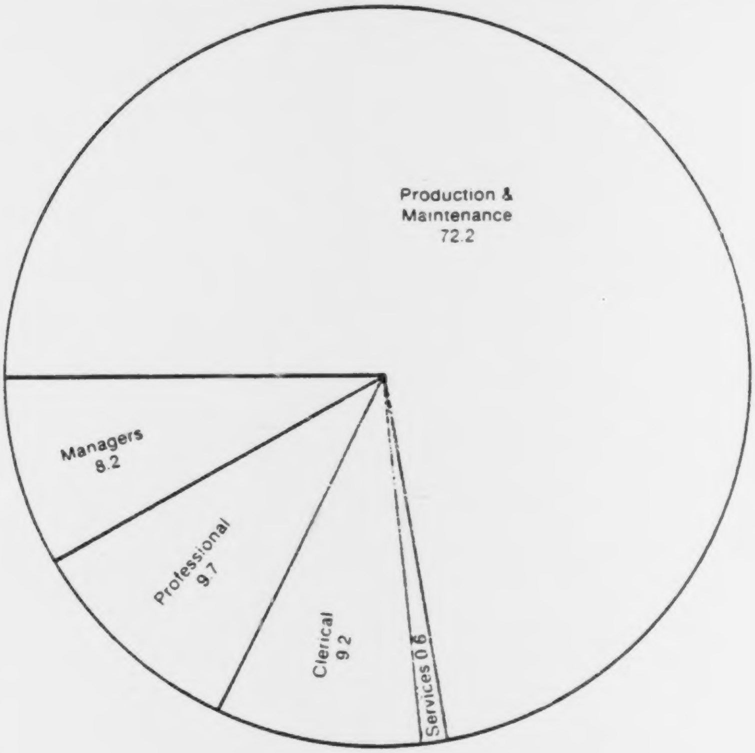
Highway and Street Construction, except Elevated Highways (SIC 161)

Heavy Construction, except Highway and Street Construction (SIC 162)

Employment in the heavy construction contractors' industry has grown 9.1 percent from 1981 to the present 1984 level of 9,190 jobs This employment increase was largely due to the refurbishing of the state's highways and bridges. Most of the workers in this industry are employed in the production, construction, and maintenance occupational category, 72.2 percent or 6,610 jobs. The next highest occupational category, professional paraprofessional, technical occupations, only comprises 9.7 percent of this industry's employment.

HEAVY CONSTRUCTION CONTRACTORS (SIC 16)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	All Other Material Moving Equipment Operators	1,890
2.	All Other Construction Trades Workers	1,770
3.	All Other Helpers, Laborers, Material Movers, Hand	1,060
4.	All Other Managers and Administrators	750
5.	All Other Motor Vehicle Operators	590
6.	All Other Clerical & Administrative Support Workers	530
7.	All Other Supervisors - Production, Construction & Maintenance	520
8.	All Other Management Support	330
9.	All Other Freight, Stock, Material Movers, Hand	320
10.	All Other Comm., Equip., Mech. Rep., Installers	280

These 10 occupational categories make up 87.8% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
HEAVY CONSTRUCTION CONTRACTORS
SIC = 16
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	9,160	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	750	8.19	N/A
ALL OTHER MANAGERS AND ADMINISTRATORS	750	8.19	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	890	9.72	N/A
ALL OTHER FINANCIAL SPECIALISTS	130	1.42	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	330	3.60	N/A
ALL OTHER ENGINEERS	260	2.84	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	130	1.42	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	20	0.22	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	20	0.22	N/A
SALES AND RELATED OCCUPATIONS	10	0.11	N/A
ALL OTHER SALES AND RELATED WORKERS	10	0.11	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	840	9.17	N/A
ALL OTHER SECRETARIES	270	2.95	N/A
ALL OTHER OFFICE MACHINE OPERATORS	30	0.33	N/A
ALL OTHER COMMUNICATIONS EQUIPMENT OPERATORS	10	0.11	N/A
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.11	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	530	5.79	N/A
SERVICE OCCUPATIONS	50	0.55	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	10	0.11	N/A
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	40	0.44	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	20	0.22	N/A
ALL OTHER AGRIC,FOR,FISH, & RELATED WORKERS	20	0.22	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	6,610	72.16	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	520	5.68	N/A
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	10	0.11	N/A
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	280	3.06	N/A
ALL OTHER ELEC & ELECTR EQUIP MECH,REP,INSTAL	60	0.66	N/A
ELECTRICIANS	10	0.11	31
ALL OTHER CONSTRUCTION TRADES WORKERS	1,770	19.32	N/A
ALL OTHER MINING MACHINE OPERATORS	20	0.22	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	20	0.22	N/A
ALL OTHER HAND WORKERS	50	0.55	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	590	6.44	N/A
PUMP OPERATORS	10	0.11	25
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	1,890	20.63	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	320	3.49	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	1,060	11.57	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# HIGHWAY AND STREET CONSTRUCTION
SIC = 161
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	3,510	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	200	5.70	N/A
FINANCIAL MANAGERS	30	0.85	29
CONSTRUCTION MANAGERS	130	3.70	18
ALL OTHER MANAGERS AND ADMINISTRATORS	40	1.14	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	160	4.56	N/A
ALL OTHER FINANCIAL SPECIALISTS	20	0.57	N/A
COST ESTIMATORS	70	1.99	23
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.28	N/A
CIVIL ENGINEERS, INCLUDING TRAFFIC	40	1.14	27
ALL OTHER ENGINEERS	10	0.28	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.28	N/A
SALES AND RELATED OCCUPATIONS	10	0.28	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	240	6.84	N/A
SECRETARIES	60	1.71	25
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	70	1.99	21
GENERAL OFFICE CLERKS	40	1.14	32
ALL OTHER OFFICE MACHINE OPERATORS	10	0.28	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	50	1.42	N/A
SERVICE OCCUPATIONS	30	0.85	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	20	0.57	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,860	81.48	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	140	3.99	N/A
MOBILE HEAVY EQUIP MECHANICS, EXCEPT ENGINES	80	2.28	34
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	60	1.71	N/A
ALL OTHER ELEC & ELECTR EQUIP MECH,REP,INSTAL	60	1.71	N/A
CARPENTERS	120	3.42	27
ELECTRICIANS	10	0.28	31
BRICK MASONS	10	0.28	24
PILE DRIVING OPERATORS	20	0.57	28
ALL OTHER CONSTRUCTION TRADES WORKERS	710	20.23	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	20	0.57	N/A
ALL OTHER HAND WORKERS	10	0.28	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	290	8.26	19
ALL OTHER MOTOR VEHICLE OPERATORS	30	0.85	N/A
EXCAVATING AND LOADING MACHINE OPERATORS	140	3.99	28
GRADER, DOZER, AND SCRAPER OPERATORS	240	6.84	30
PUMP OPERATORS	10	0.28	25
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	160	4.56	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
HIGHWAY AND STREET CONSTRUCTION
SIC = 161
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	160	4.56	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	620	17.66	21

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
HEAVY CONSTRUCTION EXCEPT HIGHWAY
SIC = 162
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	5,650	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	550	9.73	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	730	12.92	N/A
ALL OTHER FINANCIAL SPECIALISTS	110	1.95	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	250	4.42	N/A
ALL OTHER ENGINEERS	210	3.72	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	130	2.30	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	20	0.35	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	20	0.35	N/A
SALES AND RELATED OCCUPATIONS	**	0.00	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	600	10.62	N/A
ALL OTHER SECRETARIES	200	3.54	N/A
ALL OTHER OFFICE MACHINE OPERATORS	20	0.35	N/A
ALL OTHER COMMUNICATIONS EQUIPMENT OPERATORS	10	0.18	N/A
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.18	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	360	6.37	N/A
SERVICE OCCUPATIONS	20	0.35	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,750	66.37	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	380	6.73	N/A
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	10	0.18	N/A
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	140	2.48	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	930	16.46	N/A
ALL OTHER MINING MACHINE OPERATORS	20	0.35	N/A
ALL OTHER HAND WORKERS	50	0.88	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	280	4.96	N/A
ALL OTHER TRANSPORTATION AND RELATED WORKERS	10	0.18	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	1,340	23.72	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	160	2.83	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	450	7.96	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Special Trade Contractors (SIC 17)

This industry includes contractors who undertake specialized activities such as plumbing, painting, carpentering, etc. Also included are establishments primarily engaged in miscellaneous specialized construction activities such as industrial machinery and equipment installation, grave excavation, gas leakage detection and water well drilling. The firms in this industry can be divided into the following groups:

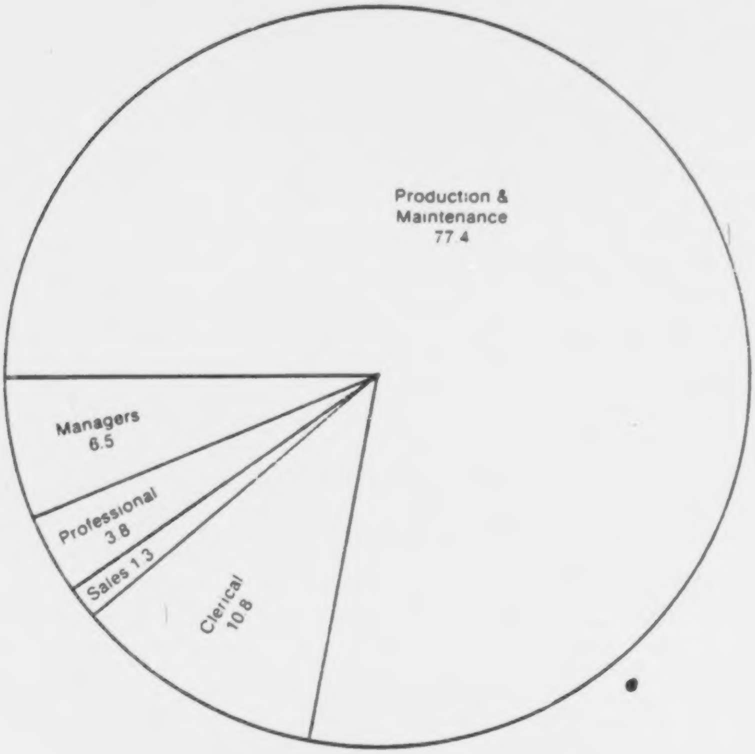
Plumbing, Heating(except Electric), and Air Conditioning (SIC 171)
Painting, Paper Hanging, and Decorating (SIC 172)
Electrical Work (SIC 173)
Masonry, Stonework, Tile Setting, and Plastering (SIC 174)
Carpentering and Flooring (SIC 175)
Roofing and Sheet Metal Work (SIC 176)
Concrete Work, (SIC 177)
Well Water Drilling (SIC 178)
Miscellaneous Special Trade Contractors (SIC 179)

Employment in the special trade contractors industry has increased 23.9 percent from 1981, an additional 11,250 jobs, to its 1984 level of 58,450 workers. Below is listed the varied types of special trade contractors with their 1984 employment level and their composition within this industry.

	1984	
	Employment	Distribution
Special Trade Contractors	58,450	100.0%
Plumbing, Heating, Air Conditioning	12,500	21.4
Painting, Paper Hanging, Decorating	4,050	6.9
Electrical Work	13,100	22.4
Masonry, Stonework, & Plastering	8,250	14.1
Carpentry and Flooring	3,250	5.6
Roofing and Sheet Metal Work	4,400	7.5
Concrete Work	1,750	3.0
Other Special Trade Contractors	11,150	19.1

SPECIAL TRADE CONTRACTORS (SIC 17)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Electricians	7,520
2.	Plumbers, Pipefitters and Steamfitters	4,150
3.	All Other Construction Trade Workers	3,550
4.	Painters, Paperhangers, Construction and Maintenance	2,770
5.	Heating, A C and Refrig. Mechanics and Installers	2,590
6.	Construction Managers	2,330
7.	Carpenters	2,240
8.	Secretaries	2,070
9.	Helpers - Elec. and Powerline Trans. Installers	1,940
10.	Bookkeeping, Accounting and Auditing Clerks	1,690

These 10 occupational categories make up 52.8% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
SPECIAL TRADE CONTRACTORS
SIC = 17
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	58,380	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	3,770	6.46	N/A
FINANCIAL MANAGERS	1,110	1.90	16
CONSTRUCTION MANAGERS	2,330	3.99	11
GENERAL MANAGERS AND TOP EXECUTIVES	270	0.46	36
ALL OTHER MANAGERS AND ADMINISTRATORS	60	0.10	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	2,190	3.75	N/A
ACCOUNTANTS AND AUDITORS	260	0.45	30
COST ESTIMATORS	1,260	2.16	17
ALL OTHER MANAGEMENT SUPPORT WORKERS	110	0.19	N/A
ALL OTHER ENGINEERS	190	0.33	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	360	0.62	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	10	0.02	N/A
SALES AND RELATED OCCUPATIONS	760	1.30	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	630	1.08	34
ALL OTHER SALES AND RELATED WORKERS	120	0.21	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	6,290	10.77	N/A
SECRETARIES	2,070	3.55	13
TYPISTS	380	0.65	28
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	1,690	2.89	11
PAYROLL AND TIMEKEEPING CLERKS	240	0.41	28
GENERAL OFFICE CLERKS	1,480	2.54	31
ALL OTHER OFFICE MACHINE OPERATORS	50	0.09	N/A
ALL OTHER COMMUNICATIONS EQUIPMENT OPERATORS	10	0.02	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	300	0.51	37
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	20	0.03	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	70	0.12	N/A
SERVICE OCCUPATIONS	120	0.21	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	120	0.21	50
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	30	0.05	N/A
ALL OTHER AGRIC,FOR,FISH, & RELATED WORKERS	30	0.05	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	45,210	77.44	N/A
SUPERVISORS-CONSTRUCTION & EXTRACTIVE WORKERS	1,570	2.69	18
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	60	0.10	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	290	0.50	47
AUTOMOTIVE MECHANICS	70	0.12	43
MOBILE HEAVY EQUIP MECHANICS, EXCEPT ENGINES	90	0.15	49
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	270	0.46	N/A
ALL OTHER ELEC & ELECTR EQUIP MECH,REP,INSTAL	120	0.21	N/A
HEATING, A/C & REFRIG MECHANICS & INSTALLERS	2,590	4.44	32

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
SPECIAL TRADE CONTRACTORS
SIC = 17
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	540	0.92	N/A
CARPENTERS	2,240	3.84	26
DRYWALL INSTALLERS	1,290	2.21	22
TAPERS	510	0.87	39
ELECTRICIANS	7,520	12.88	19
BRICK MASONS	1,320	2.26	30
CONCRETE AND TERRAZZO FINISHERS	800	1.37	38
PLASTERERS AND STUCCO MASONS	610	1.04	37
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	2,770	4.74	10
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	4,150	7.11	32
PAVING,SURFACING,TAMPING EQUIPMENT OPERATORS	370	0.63	45
INSULATION WORKERS	700	1.20	32
ROOFERS	1,540	2.64	17
GLAZIERS	870	1.49	43
STRUCTURAL METAL WORKERS	710	1.22	47
ALL OTHER CONSTRUCTION TRADES WORKERS	3,550	6.08	N/A
ALL OTHER MINING MACHINE OPERATORS	60	0.10	N/A
SHEET METAL WORKERS	1,500	2.57	32
ALL OTHER PRECISION WORKERS	10	0.02	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	190	0.33	N/A
ALL OTHER PRECISION ASSEMBLERS, METAL	40	0.07	N/A
WELDERS AND CUTTERS	200	0.34	43
ALL OTHER HAND WORKERS	20	0.03	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	420	0.72	39
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	600	1.03	25
EXCAVATING AND LOADING MACHINE OPERATORS	400	0.69	31
GRADER, DOZER, AND SCRAPER OPERATORS	310	0.53	46
OPERATING ENGINEERS	360	0.62	43
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	140	0.24	N/A
HELPERS-BRICK & STONE MASON,HARD TILE SETTERS	1,030	1.76	27
HELPERS-CARPENTERS AND RELATED	590	1.01	44
HELPERS-ELEC & POWERLINE TRANSMISSION INSTAL	1,940	3.32	42
HELPERS-PAINT, PAPERHANGER, PLASTER, & STUCCO	710	1.22	33
HELPERS-ROOFERS	440	0.75	33
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	820	1.40	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	940	1.61	37

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PAINTING,PAPER HANGING, DECORATING
SIC = 172
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,000	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	150	3.75	N/A
CONSTRUCTION MANAGERS	130	3.25	34
ALL OTHER MANAGERS AND ADMINISTRATORS	20	0.50	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	40	1.00	N/A
ALL OTHER FINANCIAL SPECIALISTS	**	0.00	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	40	1.00	N/A
SALES AND RELATED OCCUPATIONS	40	1.00	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	270	6.75	N/A
ALL OTHER SECRETARIES	40	1.00	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	150	3.75	28
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	80	2.00	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,500	87.50	N/A
SUPERVISORS-CONSTRUCTION & EXTRACTIVE WORKERS	80	2.00	48
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	20	0.50	N/A
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	2,520	63.00	10
ALL OTHER CONSTRUCTION TRADES WORKERS	200	5.00	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	20	0.50	N/A
HELPERS-PAINT, PAPERHANGER, PLASTER, & STUCCO	650	16.25	35
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	20	0.50	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ELECTRICAL WORK
SIC = 173
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	12,790	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	470	3.67	N/A
FINANCIAL MANAGERS	100	0.78	49
CONSTRUCTION MANAGERS	270	2.11	44
ALL OTHER MANAGERS AND ADMINISTRATORS	100	0.78	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	590	4.61	N/A
ALL OTHER FINANCIAL SPECIALISTS	10	0.08	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	340	2.66	N/A
ALL OTHER ENGINEERS	50	0.39	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	180	1.41	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	10	0.08	N/A
SALES AND RELATED OCCUPATIONS	100	0.78	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,360	10.63	N/A
SECRETARIES	460	3.60	33
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	240	1.88	35
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	170	1.33	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	490	3.83	N/A
SERVICE OCCUPATIONS	10	0.08	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	10,270	80.30	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	370	2.89	N/A
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	50	0.39	N/A
ALL OTHER ELEC & ELECTR EQUIP MECH,REP,INSTAL	110	0.86	N/A
ELECTRICIANS	7,510	58.72	19
ALL OTHER CONSTRUCTION TRADES WORKERS	180	1.41	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	90	0.70	N/A
HELPERS-ELEC & POWERLINE TRANSMISSION INSTAL	1,940	15.17	42
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	40	0.31	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MASONRY, STONEWORK, AND PLASTERING
SIC = 174
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	8,230	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	380	4.62	N/A
FINANCIAL MANAGERS	80	0.97	40
CONSTRUCTION MANAGERS	280	3.40	36
GENERAL MANAGERS AND TOP EXECUTIVES	20	0.24	37
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.12	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	250	3.04	N/A
ACCOUNTANTS AND AUDITORS	10	0.12	28
COST ESTIMATORS	230	2.79	23
CIVIL ENGINEERS, INCLUDING TRAFFIC	10	0.12	N/A
SALES AND RELATED OCCUPATIONS	90	1.09	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	700	8.51	N/A
SECRETARIES	120	1.46	29
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.12	35
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	170	2.07	30
GENERAL OFFICE CLERKS	290	3.52	34
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	30	0.36	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	90	1.09	N/A
SERVICE OCCUPATIONS	10	0.12	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	6,800	82.62	N/A
SUPERVISORS-CONSTRUCTION & EXTRACTIVE WORKERS	130	1.58	43
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	20	0.24	N/A
CARPENTERS	350	4.25	45
DRYWALL INSTALLERS	1,290	15.67	22
TAPERS	450	5.47	44
BRICK MASONS	1,000	12.15	38
PLASTERERS AND STUCCO MASONS	610	7.41	37
INSULATION WORKERS	540	6.56	37
ALL OTHER CONSTRUCTION TRADES WORKERS	1,240	15.07	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	170	2.07	N/A
OPERATING ENGINEERS	10	0.12	11
HELPERS-BRICK & STONE MASON,HARD TILE SETTERS	690	8.38	35
HELPERS-CARPENTERS AND RELATED	100	1.22	39
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	30	0.36	42
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	50	0.61	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	130	1.58	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
CARPENTERING AND FLOORING
SIC = 175
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	3,160	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	290	9.18	N/A
FINANCIAL MANAGERS	180	5.70	45
CONSTRUCTION MANAGERS	120	3.80	42
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	110	3.48	N/A
ALL OTHER FINANCIAL SPECIALISTS	20	0.63	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	70	2.22	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	0.63	N/A
SALES AND RELATED OCCUPATIONS	130	4.11	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	370	11.71	N/A
SECRETARIES	110	3.48	52
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	160	5.06	37
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	20	0.63	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	90	2.85	N/A
SERVICE OCCUPATIONS	10	0.32	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,270	71.84	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	80	2.53	N/A
CARPENTERS	910	28.80	40
ALL OTHER CONSTRUCTION TRADES WORKERS	990	31.33	N/A
ALL OTHER HAND WORKERS	10	0.32	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	80	2.53	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	190	6.01	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ROOFING AND SHEET METAL WORK
SIC = 176
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,340	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	240	5.53	N/A
FINANCIAL MANAGERS	60	1.38	36
CONSTRUCTION MANAGERS	170	3.92	22
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.23	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	210	4.84	N/A
ACCOUNTANTS AND AUDITORS	20	0.46	41
COST ESTIMATORS	180	4.15	20
ALL OTHER MANAGEMENT SUPPORT WORKERS	**	0.00	N/A
SALES AND RELATED OCCUPATIONS	100	2.30	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	360	8.29	N/A
SECRETARIES	90	2.07	24
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	190	4.38	19
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.23	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	80	1.84	N/A
SERVICE OCCUPATIONS	10	0.23	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,420	78.80	N/A
SUPERVISORS-CONSTRUCTION & EXTRACTIVE WORKERS	70	1.61	32
AUTOMOTIVE MECHANICS	50	1.15	50
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	30	0.69	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	220	5.07	N/A
CARPENTERS	60	1.38	44
ROOFERS	1,520	35.02	17
ALL OTHER CONSTRUCTION TRADES WORKERS	200	4.61	N/A
SHEET METAL WORKERS	590	13.59	25
ALL OTHER HAND WORKERS	10	0.23	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	50	1.15	43
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.23	N/A
HELPERS-ROOFERS	440	10.14	33
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	140	3.23	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	50	1.15	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
CONCRETE WORK
SIC = 177
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,040	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	130	6.37	N/A
CONSTRUCTION MANAGERS	120	5.88	35
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.49	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	100	4.90	N/A
ALL OTHER FINANCIAL SPECIALISTS	50	2.45	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	30	1.47	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.49	N/A
SALES AND RELATED OCCUPATIONS	**	0.00	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	180	8.82	N/A
SECRETARIES	10	0.49	N/A
GENERAL OFFICE CLERKS	160	7.84	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,640	80.39	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	60	2.94	N/A
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	60	2.94	N/A
CARPENTERS	40	1.96	42
ALL OTHER CONSTRUCTION TRADES WORKERS	950	46.57	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	100	4.90	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	130	6.37	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	210	10.29	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	100	4.90	N/A

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISC. SPECIAL TRADE CONTRACTORS
SIC = 179
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	11,450	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,060	9.26	N/A
FINANCIAL MANAGERS	270	2.36	23
CONSTRUCTION MANAGERS	700	6.11	17
ALL OTHER MANAGERS AND ADMINISTRATORS	90	0.79	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	490	4.28	N/A
ACCOUNTANTS AND AUDITORS	80	0.70	43
COST ESTIMATORS	280	2.45	26
ALL OTHER ENGINEERS	30	0.26	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	110	0.96	N/A
SALES AND RELATED OCCUPATIONS	160	1.40	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,220	10.66	N/A
SECRETARIES	490	4.28	18
TYPISTS	120	1.05	39
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	340	2.97	19
GENERAL OFFICE CLERKS	190	1.66	39
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	50	0.44	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	40	0.35	N/A
SERVICE OCCUPATIONS	30	0.26	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	30	0.26	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	8,460	73.89	N/A
SUPERVISORS-CONSTRUCTION & EXTRACTIVE WORKERS	440	3.84	31
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.09	N/A
MOBILE HEAVY EQUIP MECHANICS, EXCEPT ENGINES	90	0.79	50
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	400	3.49	N/A
ALL OTHER ELEC & ELECTR EQUIP MECH,REP,INSTAL	10	0.09	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	530	4.63	N/A
BRICK MASONS	120	1.05	48
GLAZIERS	870	7.60	43
STRUCTURAL METAL WORKERS	650	5.68	48
ALL OTHER CONSTRUCTION TRADES WORKERS	2,540	22.18	N/A
ALL OTHER PRECISION METAL WORKERS	120	1.05	N/A
ALL OTHER METAL & PLASTIC MACH OPER & TENDERS	190	1.66	N/A
ALL OTHER PRECISION ASSEMBLERS, METAL	40	0.35	N/A
WELDERS AND CUTTERS	190	1.66	45
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	150	1.31	37
ALL OTHER MOTOR VEHICLE OPERATORS	180	1.57	N/A
EXCAVATING AND LOADING MACHINE OPERATORS	400	3.49	31
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	520	4.54	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISC. SPECIAL TRADE CONTRACTORS
SIC = 179
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	530	4.63	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	490	4.28	43

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Banking (SIC 60)

This industry includes institutions which are engaged in deposit banking or closely related functions, including fiduciary activities. The firms in this industry can be divided into the following groups:

- Federal Reserve Bank (SIC 601)
- Commercial Stock Savings Banks (SIC 602)
- Mutual Savings Banks (SIC 603)
- Trust Companies Not Engaged in Deposit Banking (SIC 604)
- Establishments Performing Functions Closely Related to Banking (SIC 605)

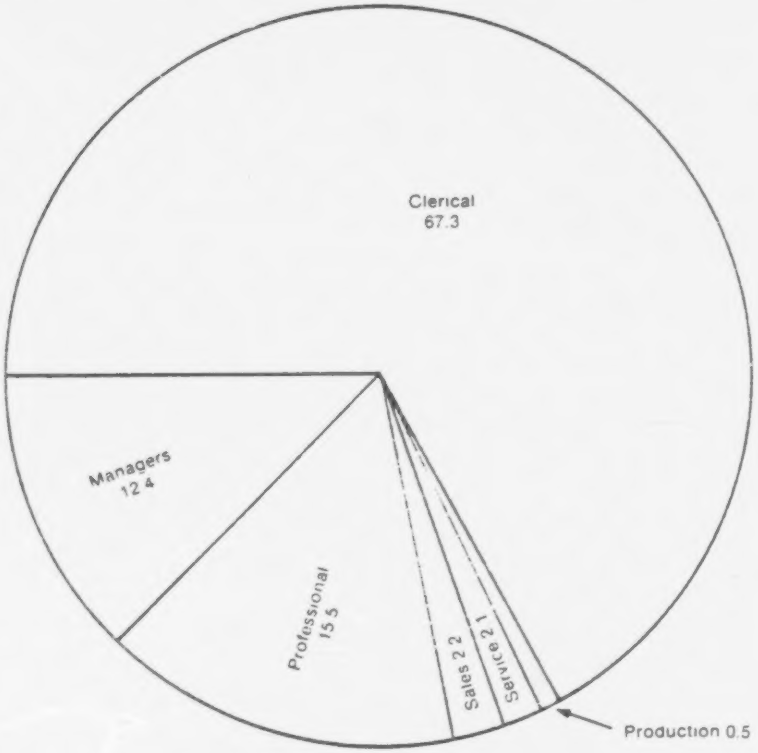
Since 1981 employment in the banking industry has grown 8.2 percent, 4,100 more jobs, to its 1984 employment level at 54,600. New technology through automation providing such services as electronic transfer systems, direct depost, and automatic teller machines have had an effect on the work force within this industry.

The occupational composition within the banking industry has shifted since the last survey conducted in 1981. Identified below are changes in the share composed by occupational categories. The managerial, administrative, professional, paraprofessional, and technical workers are gaining a greater share of the total employment, whereas clerical workers are losing their share.

	Distribution	
	1984	1981
Managerial, Administrative, Professional, Paraprofessional and Technical	27.9	24.7
Sales	2.2	1.2
Clerical	67.3	71.1
Services and Agricultural Related	2.1	2.4
Production, Construction & Maintenance	0.4	0.5

BANKING (SIC 60)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Tellers	11,680
2.	General Office Clerks	4,580
3.	All Other Clerical & Administrative Support Workers	3,240
4.	All Other Financial Specialists	2,600
5.	Supervisors and Managers/Supervisors-Clerks, Admin./Support	2,580
6.	Financial Managers	2,500
7.	Secretaries	2,090
8.	All Other Managers and Administrators	1,920
9.	Loan and Credit Clerks	1,760
10.	New Account Clerks	1,740

These 10 occupational categories make up 64.0% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
BANKING
SIC = 60
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	54,220	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	6,740	12.43	N/A
FINANCIAL MANAGERS	2,500	4.61	18
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	260	0.48	38
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	260	0.48	19
ADMINISTRATIVE SERVICES MANAGERS	100	0.18	22
GENERAL MANAGERS AND TOP EXECUTIVES	1,710	3.15	15
ALL OTHER MANAGERS AND ADMINISTRATORS	1,920	3.54	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	8,410	15.51	N/A
CREDIT ANALYSTS	330	0.61	30
LOAN OFFICERS AND COUNSELORS	1,470	2.71	23
ACCOUNTANTS AND AUDITORS	1,450	2.67	9
ALL OTHER FINANCIAL SPECIALISTS	2,600	4.80	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	20	0.04	25
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	240	0.44	15
MANAGEMENT ANALYSTS	40	0.07	12
ALL OTHER MANAGEMENT SUPPORT WORKERS	640	1.18	11
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.02	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	650	1.20	4
COMPUTER PROGRAMMERS	290	0.53	10
COMPUTER PROGRAMMER AIDES	100	0.18	20
FINANCIAL ANALYSTS, STATISTICAL	210	0.39	16
ALL OTHER MATHEMATICAL SCIENTISTS	80	0.15	N/A
ECONOMISTS,INCLUDING MARKET RESEARCH ANALYSTS	40	0.07	2
LAWYERS	80	0.15	3
PARALEGAL PERSONNEL	10	0.02	N/A
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	10	0.02	N/A
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	10	0.02	N/A
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	10	0.02	14
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	140	0.26	N/A
SALES AND RELATED OCCUPATIONS	1,210	2.23	N/A
SALES AGENTS AND PLACERS, INSURANCE	40	0.07	28
APPRAISERS, REAL ESTATE	50	0.09	48
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	1,120	2.07	N/A
ALL OTHER SALES AND RELATED WORKERS	10	0.02	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	36,470	67.26	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	2,580	4.76	10
TELLERS	11,680	21.54	10
NEW ACCOUNTS CLERKS	1,740	3.21	21
CREDIT AUTHORIZERS	120	0.22	27

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
BANKING
SIC = 60
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
CREDIT CHECKERS	350	0.65	28
LOAN AND CREDIT CLERKS	1,760	3.25	14
ADJUSTMENT CLERKS	440	0.81	29
STATEMENT CLERKS	1,160	2.14	27
BROKERAGE CLERKS	160	0.30	44
BILL AND ACCOUNT COLLECTORS	420	0.77	8
SECRETARIES	2,090	3.85	8
STENOGRAPHERS	90	0.17	22
RECEPTIONIST AND INFORMATION CLERKS	270	0.50	35
TYPISTS	350	0.65	18
TYPISTS, WORD PROCESSING EQUIPMENT	220	0.41	43
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	110	0.20	35
CORRESPONDENCE CLERKS	30	0.06	9
FILE CLERKS	390	0.72	27
STATISTICAL CLERKS	30	0.06	10
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	1,410	2.60	24
PAYROLL AND TIMEKEEPING CLERKS	100	0.18	21
GENERAL OFFICE CLERKS	4,580	8.45	10
DUPLICATING MACHINE OPERATORS	40	0.07	13
MAIL MACH. OPERATORS, PREPARATION & HANDLING	70	0.13	29
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	550	1.01	28
PERIPHERAL EDP EQUIPMENT OPERATORS	270	0.50	10
DATA ENTRY KEYERS, EXCEPT COMPOSING	400	0.74	12
ALL OTHER OFFICE MACHINE OPERATORS	780	1.44	N/A
SWITCHBOARD OPERATORS	320	0.59	20
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	300	0.55	19
MESSENGERS	390	0.72	17
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	60	0.11	17
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	3,240	5.98	N/A
SERVICE OCCUPATIONS	1,130	2.08	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	110	0.20	N/A
GUARDS AND WATCH GUARDS	230	0.42	6
FOOD & BEVERAGE PREPARATION & SERVICE OCCUP.	110	0.20	8
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	630	1.16	21
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	50	0.09	N/A
ALL OTHER SERVICE WORKERS	**	0.00	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	10	0.02	N/A
GARDENERS AND GROUNDSKEEPERS, EXCEPT FARM	10	0.02	22
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	240	0.44	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	40	0.07	N/A

---

[1] - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
BANKING
SIC = 60
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
MAINTENANCE REPAIRERS, GENERAL UTILITY	70	0.13	18
CARPENTERS	10	0.02	31
ELECTRICIANS	20	0.04	6
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	10	0.02	28
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.02	N/A
MACHINE SETTER,SET-UP OPERATOR, OPER & TENDER	10	0.02	45
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.02	13
TAXI DRIVERS AND CHAUFFEURS	30	0.06	3
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	30	0.06	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
FEDERAL RESERVE BANKS
SIC = 601
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,330	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	130	9.77	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	250	18.80	N/A
ALL OTHER FINANCIAL SPECIALISTS	100	7.52	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	60	4.51	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	70	5.26	N/A
ALL OTHER SOCIAL SCIENTISTS	10	0.75	N/A
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	**	0.00	N/A
SALES AND RELATED OCCUPATIONS	10	0.75	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	770	57.89	N/A
ALL OTHER SECRETARIES	50	3.76	N/A
ALL OTHER OFFICE MACHINE OPERATORS	180	13.53	N/A
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.75	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	530	39.85	N/A
SERVICE OCCUPATIONS	120	9.02	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	10	0.75	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	40	3.01	N/A
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	70	5.26	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	10	0.75	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	50	3.76	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.75	N/A
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.75	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	30	2.26	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
COMMERCIAL AND STOCK SAVINGS BANKS
SIC = 602
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	39,510	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	5,150	13.03	N/A
FINANCIAL MANAGERS	1,810	4.58	21
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	200	0.51	23
ADMINISTRATIVE SERVICES MANAGERS	80	0.20	25
GENERAL MANAGERS AND TOP EXECUTIVES	1,300	3.29	19
ALL OTHER MANAGERS AND ADMINISTRATORS	1,750	4.43	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	7,420	18.78	N/A
CREDIT ANALYSTS	240	0.61	38
LOAN OFFICERS AND COUNSELORS	1,130	2.86	29
ACCOUNTANTS AND AUDITORS	1,260	3.19	10
ALL OTHER FINANCIAL SPECIALISTS	2,460	6.23	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	20	0.05	32
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	200	0.51	18
MANAGEMENT ANALYSTS	40	0.10	12
ALL OTHER MANAGEMENT SUPPORT WORKERS	590	1.49	11
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.03	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	610	1.54	4
COMPUTER PROGRAMMERS	230	0.58	12
COMPUTER PROGRAMMER AIDES	90	0.23	23
FINANCIAL ANALYSTS, STATISTICAL	190	0.48	17
ALL OTHER MATHEMATICAL SCIENTISTS	70	0.18	N/A
ECONOMISTS,INCLUDING MARKET RESEARCH ANALYSTS	30	0.08	3
LAWYERS	80	0.20	3
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	20	0.05	N/A
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	10	0.03	N/A
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	10	0.03	14
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	140	0.35	23
SALES AND RELATED OCCUPATIONS	1,060	2.68	N/A
APPRAISERS, REAL ESTATE	10	0.03	47
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	1,050	2.66	47
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	25,150	63.65	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	1,570	3.97	12
TELLERS	6,500	16.45	17
NEW ACCOUNTS CLERKS	860	2.18	41
CREDIT AUTHORIZERS	110	0.28	28
CREDIT CHECKERS	260	0.66	36
LOAN AND CREDIT CLERKS	1,070	2.71	20
ADJUSTMENT CLERKS	340	0.86	37
STATEMENT CLERKS	810	2.05	38

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
COMMERCIAL AND STOCK SAVINGS BANKS
SIC = 602
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
STATEMENT CLERKS	810	2.05	38
BROKERAGE CLERKS	150	0.38	47
BILL AND ACCOUNT COLLECTORS	340	0.86	8
SECRETARIES	1,670	4.23	9
STENOGRAPHERS	80	0.20	23
TYPISTS	290	0.73	21
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	80	0.20	44
CORRESPONDENCE CLERKS	30	0.08	7
FILE CLERKS	260	0.66	38
STATISTICAL CLERKS	20	0.05	13
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	1,090	2.76	31
PAYROLL AND TIMEKEEPING CLERKS	60	0.15	14
GENERAL OFFICE CLERKS	3,780	9.57	11
DUPLICATING MACHINE OPERATORS	30	0.08	15
MAIL MACH. OPERATORS, PREPARATION & HANDLING	40	0.10	46
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	470	1.19	32
PERIPHERAL EDP EQUIPMENT OPERATORS	260	0.66	11
DATA ENTRY KEYERS, EXCEPT COMPOSING	350	0.89	14
ALL OTHER OFFICE MACHINE OPERATORS	600	1.52	N/A
SWITCHBOARD OPERATORS	150	0.38	35
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	230	0.58	25
MESSENGERS	330	0.84	19
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	50	0.13	21
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	3,300	8.35	N/A
SERVICE OCCUPATIONS	630	1.59	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	30	0.08	N/A
GUARDS AND WATCH GUARDS	180	0.46	6
FOOD & BEVERAGE PREPARATION & SERVICE OCCUP.	100	0.25	7
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	280	0.71	42
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	30	0.08	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	110	0.28	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	40	0.10	27
CARPENTERS	10	0.03	49
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.03	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	10	0.03	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.03	10
TAXI DRIVERS AND CHAUFFEURS	30	0.08	3

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MUTUAL SAVINGS BANKS
SIC = 603
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	13,020	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,350	10.37	N/A
FINANCIAL MANAGERS	620	4.76	37
PERSONNEL, TRAINING, AND LABOR RELATIONS MGRS.	70	0.54	23
PURCHASING MANAGERS	30	0.23	44
MARKETING, ADVERTISING, PUBLIC RELATIONS MGRS.	60	0.46	24
ADMINISTRATIVE SERVICES MANAGERS	20	0.15	29
GENERAL MANAGERS AND TOP EXECUTIVES	300	2.30	25
ALL OTHER MANAGERS AND ADMINISTRATORS	260	2.00	N/A
PROFESSIONAL, PARAPROFESSIONAL, TECH OCCUPATION	710	5.45	N/A
LOAN OFFICERS AND COUNSELORS	330	2.53	20
ACCOUNTANTS AND AUDITORS	170	1.31	19
BUDGET ANALYSTS	10	0.08	47
ALL OTHER FINANCIAL SPECIALISTS	110	0.84	N/A
PURCH AGENTS EXCEPT WHOLESALE, RETAIL & FARM	10	0.08	28
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	30	0.23	16
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	20	0.15	28
COMPUTER PROGRAMMERS	20	0.15	30
COMPUTER PROGRAMMER AIDES	10	0.08	23
ALL OTHER MATHEMATICAL SCIENTISTS	20	0.15	N/A
SALES AND RELATED OCCUPATIONS	140	1.08	N/A
SALES AGENTS AND PLACERS, INSURANCE	40	0.31	28
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	100	0.77	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	10,350	79.49	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	920	7.07	22
TELLERS	5,120	39.32	5
NEW ACCOUNTS CLERKS	880	6.76	12
TRANSIT CLERKS	70	0.54	25
LOAN INTERVIEWERS	170	1.31	37
CREDIT CHECKERS	90	0.69	28
LOAN AND CREDIT CLERKS	690	5.30	15
ADJUSTMENT CLERKS	80	0.61	28
STATEMENT CLERKS	350	2.69	23
BILL AND ACCOUNT COLLECTORS	70	0.54	30
SECRETARIES	310	2.38	11
RECEPTIONIST AND INFORMATION CLERKS	90	0.69	27
TYPISTS	50	0.38	42
TYPISTS, WORD PROCESSING EQUIPMENT	30	0.23	45
FILE CLERKS	130	1.00	33
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	270	2.07	22

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MUTUAL SAVINGS BANKS
SIC = 603
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
GENERAL OFFICE CLERKS	470	3.61	42
BILLING, POSTING, CALCULATING MACH. OPERATORS	50	0.38	43
MAIL MACH. OPERATORS, PREPARATION & HANDLING	20	0.15	23
DATA ENTRY KEYERS, EXCEPT COMPOSING	30	0.23	46
ALL OTHER OFFICE MACHINE OPERATORS	60	0.46	N/A
SWITCHBOARD OPERATORS	170	1.31	23
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	40	0.31	34
MESSENGERS	50	0.38	24
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	140	1.08	N/A
SERVICE OCCUPATIONS	390	3.00	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	70	0.54	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	10	0.08	N/A
ALL OTHER FOOD SERVICE WORKERS	10	0.08	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	280	2.15	21
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	20	0.15	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	80	0.61	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	30	0.23	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	20	0.15	34
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	30	0.23	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Credit Agencies Other Than Banks (SIC 61)

This industry includes establishments engaged in extending credit in the form of loans but not engaged in deposit banking. The firms in this industry can be divided into the following groups:

- Rediscount and Financing Institutions for Credit Agencies Other Than Banks (SIC 611)
- Savings and Loan Associations (SIC 612)
- Agricultural Credit Institutions (SIC 613)
- Personal Credit Institutions (SIC 614)
- Business Credit Institutions (SIC 615)
- Mortgage Bankers and Brokers (SIC 616)

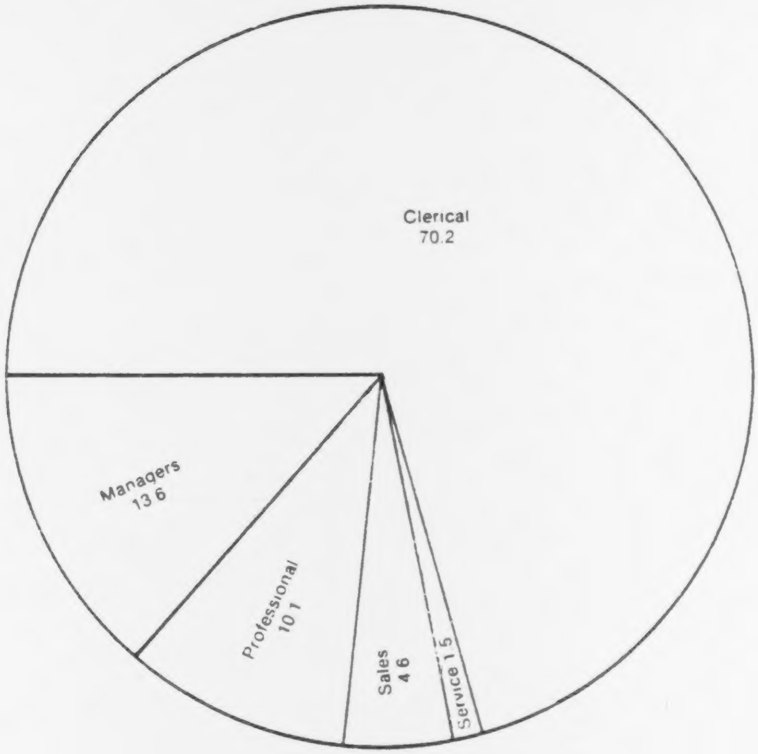
Employment in the credit agencies other than the banking industry has grown 25.7 percent, an increase of nearly 2,500 jobs from 1981 to 1984, with a 1984 employment level at 12,150. Two types of credit agencies comprise the bulk of this industry: savings and loan associations, 43.3 percent and personal credit institutions, 38.3 percent.

Several occupational categories have shifted their share of total employment since the last survey conducted in 1981. One occupational category has more than doubled its percentage share; sales occupations increased 3.1 percentage points from the last survey.

	Distribution	
	1984	1981
Managerial, Administrative, Professional, Paraprofessional, & Technical	23.7	24.7
Sales	4.6	1.5
Clerical	70.2	71.3
Service and Agricultural Related	1.6	2.4
Production, Construction & Maintenance	0.8	0.1

CREDIT AGENCIES OTHER THAN BANKS (SIC 61)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Tellers	3,550
2.	Financial Managers	1,250
3.	Loan and Credit Clerks	970
4.	Bookkeeping, Accounting and Auditing Clerks	640
5.	General Office Clerks	530
6.	New Accounts Clerks	490
7.	Secretaries	420
8.	Credit Analysts	380
9.	All Other Financial Specialists	340
10.	Sales Agents, Securities, Commodities, Financial Services	340

These 10 occupational categories make up 74.0% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
CREDIT AGENCIES OTHER BANKS
SIC = 61
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	12,040	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,640	13.62	N/A
FINANCIAL MANAGERS	1,250	10.38	6
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	30	0.25	17
PURCHASING MANAGERS	10	0.08	25
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	30	0.25	12
ADMINISTRATIVE SERVICES MANAGERS	10	0.08	25
GENERAL MANAGERS AND TOP EXECUTIVES	170	1.41	21
ALL OTHER MANAGERS AND ADMINISTRATORS	130	1.08	20
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	1,210	10.05	N/A
CREDIT ANALYSTS	380	3.16	24
ACCOUNTANTS AND AUDITORS	230	1.91	17
ALL OTHER FINANCIAL SPECIALISTS	340	2.82	N/A
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	20	0.17	19
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.17	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	30	0.25	26
COMPUTER PROGRAMMERS	50	0.42	36
COMPUTER PROGRAMMER AIDES	30	0.25	8
OPER & SYS RESEARCHERS & ANALYST,EXC COMMUNI	20	0.17	14
FINANCIAL ANALYSTS, STATISTICAL	10	0.08	33
ALL OTHER SOCIAL SCIENTISTS	10	0.08	N/A
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	40	0.33	N/A
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	30	0.25	36
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	**	0.00	N/A
SALES AND RELATED OCCUPATIONS	550	4.57	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	50	0.42	50
APPRAISERS, REAL ESTATE	50	0.42	28
SALES AGENTS,SECURITIES,COMMODITIES, FIN.SVCS	340	2.82	35
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	70	0.58	N/A
ALL OTHER SALES AND RELATED WORKERS	40	0.33	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	8,450	70.18	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	280	2.33	14
TELLERS	3,550	29.49	3
NEW ACCOUNTS CLERKS	490	4.07	8
TRANSIT CLERKS	20	0.17	21
LOAN INTERVIEWERS	100	0.83	N/A
CREDIT CHECKERS	190	1.58	22
LOAN AND CREDIT CLERKS	970	8.06	13
STATEMENT CLERKS	190	1.58	19
INSURANCE EXAMINING CLERKS	10	0.08	30

---

[1] - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
CREDIT AGENCIES OTHER BANKS
SIC = 61
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
BILL AND ACCOUNT COLLECTORS	120	1.00	26
SECRETARIES	420	3.49	11
STENOGRAPHERS	20	0.17	50
RECEPTIONIST AND INFORMATION CLERKS	160	1.33	19
TYPISTS	80	0.66	26
TYPISTS, WORD PROCESSING EQUIPMENT	70	0.58	30
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.08	49
FILE CLERKS	130	1.08	18
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	640	5.32	8
PAYROLL AND TIMEKEEPING CLERKS	30	0.25	25
GENERAL OFFICE CLERKS	530	4.40	21
BILLING, POSTING, CALCULATING MACH. OPERATORS	20	0.17	43
MAIL MACH. OPERATORS, PREPARATION & HANDLING	10	0.08	37
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	70	0.58	29
DATA ENTRY KEYERS, EXCEPT COMPOSING	70	0.58	35
ALL OTHER OFFICE MACHINE OPERATORS	20	0.17	N/A
SWITCHBOARD OPERATORS	80	0.66	18
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	20	0.17	25
MESSENGERS	40	0.33	31
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.08	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	150	1.25	N/A
SERVICE OCCUPATIONS	180	1.50	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.08	19
GUARDS AND WATCH GUARDS	10	0.08	14
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	160	1.33	14
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	10	0.08	N/A
GARDENERS AND GROUNDSKEEPERS, EXCEPT FARM	10	0.08	43
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	10	0.08	N/A
ALL OTHER MACHINERY MAINTENANCE MECHANICS	10	0.08	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
SAVINGS AND LOAN ASSOCIATION
SIC = 612
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	5,180	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	720	13.90	N/A
FINANCIAL MANAGERS	530	10.23	8
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.39	21
PURCHASING MANAGERS	10	0.19	25
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.19	22
ADMINISTRATIVE SERVICES MANAGERS	10	0.19	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	90	1.74	33
ALL OTHER MANAGERS AND ADMINISTRATORS	50	0.97	25
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	230	4.44	N/A
CREDIT ANALYSTS	50	0.97	37
LOAN OFFICERS AND COUNSELORS	70	1.35	15
ACCOUNTANTS AND AUDITORS	50	0.97	31
ALL OTHER FINANCIAL SPECIALISTS	30	0.58	N/A
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.19	22
ALL OTHER MATHEMATICAL SCIENTISTS	20	0.39	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	10	0.19	N/A
SALES AND RELATED OCCUPATIONS	50	0.97	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	10	0.19	N/A
APPRAISERS, REAL ESTATE	20	0.39	40
SALES AGENTS,SECURITIES,COMMODITIES, FIN.SVCS	20	0.39	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	10	0.19	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	4,070	78.57	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	160	3.09	20
TELLERS	2,260	43.63	4
NEW ACCOUNTS CLERKS	360	6.95	10
LOAN INTERVIEWERS	30	0.58	35
CREDIT CHECKERS	50	0.97	27
LOAN AND CREDIT CLERKS	220	4.25	14
STATEMENT CLERKS	110	2.12	14
BILL AND ACCOUNT COLLECTORS	10	0.19	40
SECRETARIES	130	2.51	17
RECEPTIONIST AND INFORMATION CLERKS	80	1.54	20
TYPISTS	30	0.58	49
TYPISTS, WORD PROCESSING EQUIPMENT	20	0.39	22
FILE CLERKS	60	1.16	29
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	290	5.60	11
PAYROLL AND TIMEKEEPING CLERKS	20	0.39	31
GENERAL OFFICE CLERKS	110	2.12	33
ALL OTHER OFFICE MACHINE OPERATORS	30	0.58	N/A

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
SAVINGS AND LOAN ASSOCIATION
SIC = 612
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SWITCHBOARD OPERATORS	40	0.77	29
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	10	0.19	20
MESSENGERS	20	0.39	44
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.19	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	40	0.77	N/A
SERVICE OCCUPATIONS	110	2.12	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	10	0.19	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	100	1.93	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	10	0.19	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PERSONAL CREDIT INSTITUTIONS
SIC = 614
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,580	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	660	14.41	N/A
FINANCIAL MANAGERS	570	12.45	7
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.22	32
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.22	14
GENERAL MANAGERS AND TOP EXECUTIVES	40	0.87	22
ALL OTHER MANAGERS AND ADMINISTRATORS	40	0.87	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	380	8.30	N/A
CREDIT ANALYSTS	120	2.62	22
LOAN OFFICERS AND COUNSELORS	60	1.31	31
ACCOUNTANTS AND AUDITORS	130	2.84	18
ALL OTHER FINANCIAL SPECIALISTS	20	0.44	37
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.22	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	30	0.66	N/A
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	10	0.22	40
SALES AND RELATED OCCUPATIONS	230	5.02	N/A
APPRAISERS, REAL ESTATE	10	0.22	46
SALES AGENTS,SECURITIES,COMMODITIES, FIN.SVCS	130	2.84	44
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	50	1.09	N/A
ALL OTHER SALES AND RELATED WORKERS	40	0.87	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	3,230	70.52	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	90	1.97	16
TELLERS	1,280	27.95	7
NEW ACCOUNTS CLERKS	130	2.84	14
LOAN INTERVIEWERS	30	0.66	32
CREDIT CHECKERS	130	2.84	30
LOAN AND CREDIT CLERKS	410	8.95	11
ADJUSTMENT CLERKS	10	0.22	45
STATEMENT CLERKS	50	1.09	19
BILL AND ACCOUNT COLLECTORS	80	1.75	21
SECRETARIES	110	2.40	17
RECEPTIONIST AND INFORMATION CLERKS	40	0.87	22
TYPISTS	30	0.66	37
FILE CLERKS	50	1.09	23
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	260	5.68	11
PAYROLL AND TIMEKEEPING CLERKS	10	0.22	24
GENERAL OFFICE CLERKS	330	7.21	16
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	40	0.87	33
DATA ENTRY KEYERS, EXCEPT COMPOSING	40	0.87	32
ALL OTHER OFFICE MACHINE OPERATORS	10	0.22	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PERSONAL CREDIT INSTITUTIONS
SIC = 614
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SWITCHBOARD OPERATORS	30	0.66	14
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	10	0.22	50
MESSENGERS	10	0.22	25
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	50	1.09	N/A
SERVICE OCCUPATIONS	70	1.53	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MORTGAGE BANKERS AND BROKERS
SIC = 616
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,500	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	140	9.33	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	360	24.00	N/A
ALL OTHER FINANCIAL SPECIALISTS	320	21.33	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.67	N/A
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	20	1.33	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	10	0.67	N/A
SALES AND RELATED OCCUPATIONS	200	13.33	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	810	54.00	N/A
LOAN AND CREDIT CLERKS	320	21.33	36
SECRETARIES	80	5.33	37
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	60	4.00	50
ALL OTHER OFFICE MACHINE OPERATORS	40	2.67	N/A
ALL OTHER COMMUNICATIONS EQUIPMENT OPERATORS	10	0.67	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	300	20.00	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Security and Commodity Brokers and Services (SIC 62)

This industry includes establishments engaged in the underwriting, purchase, sale, or brokerage of securities and other financial contracts on their own account or for the account of others: exchanges, exchange clearing houses and other services allied with the exchange of securities and commodities. The firms in this industry can be divided into the following groups:

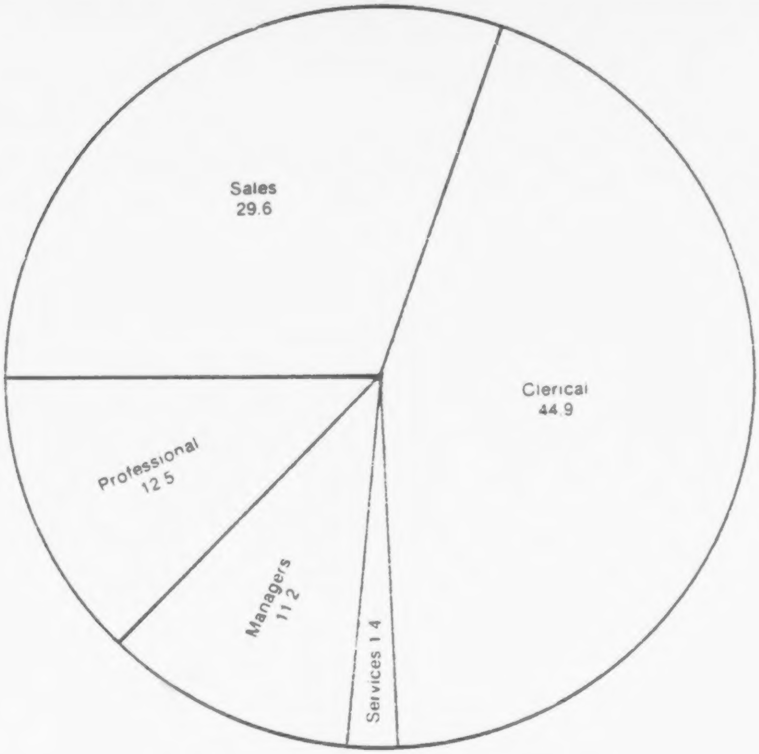
- Security Brokers, Dealers, and Flotation Companies (SIC 621)
- Commodity Contracts Brokers and Dealers (SIC 622)
- Security and Commodity Exchanges (SIC 623)
- Services Allied with the Exchanges of Securities or Commodities (SIC 628)

Tremendous employment growth has been recorded in the security and commodity brokers and services industry, a 29.9 percent increase since 1981 reaching its 1984 level at 12,750. Much of this growth can be attributed to personal demand of new investment vehicles. Individuals are becoming more aware and concerned over their financial needs and future financial plans.

Nearly 75 percent of all workers in this industry are in a sales or clerical function. One out of four workers is a sales representative or salesperson supplying the information to service the clients.

SECURITY, COMMODITY BROKERS AND SERVICES (SIC 62)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	All Other Sales Representatives and Salespersons, Service	3,520
2.	All Other Clerical & Administrative Support Workers	3,150
3.	Secretaries	1,560
4.	All Other Mathematical Scientists	690
5.	All Other Office Machine Operators	480
6.	All Other Financial Specialists	420
7.	General Managers and Top Executives	400
8.	All Other Managers & Administrators	380
9.	All Other Management Support Workers	270
10.	All Other Sales and Related Workers	200

These 10 occupational catagories make up 88.2% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
SECURITY,COMMODITY BROKERS &SERVICES
SIC = 62
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	12,550	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,400	11.16	N/A
FINANCIAL MANAGERS	620	4.94	29
GENERAL MANAGERS AND TOP EXECUTIVES	400	3.19	48
ALL OTHER MANAGERS AND ADMINISTRATORS	380	3.03	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	1,570	12.51	N/A
ALL OTHER FINANCIAL SPECIALISTS	420	3.35	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	270	2.15	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	690	5.50	N/A
ALL OTHER SOCIAL SCIENTISTS	70	0.56	N/A
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	70	0.56	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	40	0.32	N/A
SALES AND RELATED OCCUPATIONS	3,720	29.64	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	3,520	28.05	N/A
ALL OTHER SALES AND RELATED WORKERS	200	1.59	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	5,630	44.86	N/A
TRANSIT CLERKS	140	1.12	33
SECRETARIES	1,560	12.43	N/A
RECEPTIONIST AND INFORMATION CLERKS	150	1.20	49
BILLING, POSTING, CALCULATING MACH. OPERATORS	30	0.24	6
DUPLICATING MACHINE OPERATORS	30	0.24	22
ALL OTHER OFFICE MACHINE OPERATORS	480	3.82	N/A
ALL OTHER COMMUNICATIONS EQUIPMENT OPERATORS	70	0.56	N/A
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	20	0.16	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	3,150	25.10	N/A
SERVICE OCCUPATIONS	170	1.35	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	50	0.40	N/A
ALL OTHER FOOD SERVICE WORKERS	50	0.40	N/A
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	70	0.56	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	30	0.24	N/A
ALL OTHER AGRIC,FOR,FISH, & RELATED WORKERS	30	0.24	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	50	0.40	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.08	N/A
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	20	0.16	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	20	0.16	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	10	0.08	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
SECURITY, BROKERS AND DEALERS
SIC = 621
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	6,710	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	480	7.15	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	520	7.75	N/A
ALL OTHER FINANCIAL SPECIALISTS	240	3.58	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	100	1.49	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	110	1.64	N/A
ALL OTHER SOCIAL SCIENTISTS	10	0.15	N/A
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	40	0.60	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	20	0.30	N/A
SALES AND RELATED OCCUPATIONS	3,110	46.35	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	2,920	43.52	N/A
ALL OTHER SALES AND RELATED WORKERS	190	2.83	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	2,460	36.66	N/A
ALL OTHER SECRETARIES	810	12.07	N/A
ALL OTHER OFFICE MACHINE OPERATORS	120	1.79	N/A
ALL OTHER COMMUNICATIONS EQUIPMENT OPERATORS	30	0.45	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	1,500	22.35	N/A
SERVICE OCCUPATIONS	80	1.19	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	40	0.60	N/A
ALL OTHER FOOD SERVICE WORKERS	20	0.30	N/A
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.15	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	30	0.45	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	30	0.45	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
SECURITY AND COMMODITY SERVICES
SIC = 628
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	5,640	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	880	15.60	N/A
FINANCIAL MANAGERS	530	9.40	28
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	30	0.53	21
PURCHASING MANAGERS	10	0.18	40
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	20	0.35	39
ADMINISTRATIVE SERVICES MANAGERS	10	0.18	40
GENERAL MANAGERS AND TOP EXECUTIVES	200	3.55	23
ALL OTHER MANAGERS AND ADMINISTRATORS	90	1.60	40
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	1,040	18.44	N/A
ACCOUNTANTS AND AUDITORS	120	2.13	30
ALL OTHER FINANCIAL SPECIALISTS	60	1.06	N/A
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.18	43
MANAGEMENT ANALYSTS	10	0.18	24
ALL OTHER MANAGEMENT SUPPORT WORKERS	140	2.48	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	30	0.53	24
COMPUTER PROGRAMMERS	80	1.42	48
FINANCIAL ANALYSTS, STATISTICAL	370	6.56	28
ALL OTHER MATHEMATICAL SCIENTISTS	90	1.60	N/A
ALL OTHER SOCIAL SCIENTISTS	70	1.24	N/A
LAWYERS	20	0.35	42
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	10	0.18	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	20	0.35	N/A
SALES AND RELATED OCCUPATIONS	560	9.93	N/A
SALES AGENTS,SECURITIES,COMMODITIES, FIN.SVCS	370	6.56	50
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	170	3.01	N/A
ALL OTHER SALES AND RELATED WORKERS	10	0.18	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	3,110	55.14	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	200	3.55	22
BROKERAGE CLERKS	480	8.51	28
SECRETARIES	740	13.12	15
RECEPTIONIST AND INFORMATION CLERKS	80	1.42	35
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	20	0.35	33
CORRESPONDENCE CLERKS	120	2.13	25
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	280	4.96	31
PAYROLL AND TIMEKEEPING CLERKS	20	0.35	33
GENERAL OFFICE CLERKS	170	3.01	35
BILLING, POSTING, CALCULATING MACH. OPERATORS	30	0.53	6
DUPLICATING MACHINE OPERATORS	30	0.53	22
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	90	1.60	31

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
SECURITY AND COMMODITY SERVICES
SIC = 628
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
DATA ENTRY KEYERS, EXCEPT COMPOSING	90	1.60	18
ALL OTHER OFFICE MACHINE OPERATORS	170	3.01	N/A
SWITCHBOARD OPERATORS	40	0.71	46
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	50	0.89	25
MESSENGERS	60	1.06	30
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.18	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	440	7.80	N/A
SERVICE OCCUPATIONS	50	0.89	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	10	0.18	N/A

[1] - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

Insurance (SIC 63)

This industry includes insurance carriers of all types. The firms in this industry can be divided into the following groups:

Life Insurance (SIC 631)

Accident and Health Insurance and Medical Service Plans (SIC 632)

Fire, Marine, and Casualty Insurance (SIC 633)

Surety Insurance (SIC 635)

Title Insurance (SIC 636)

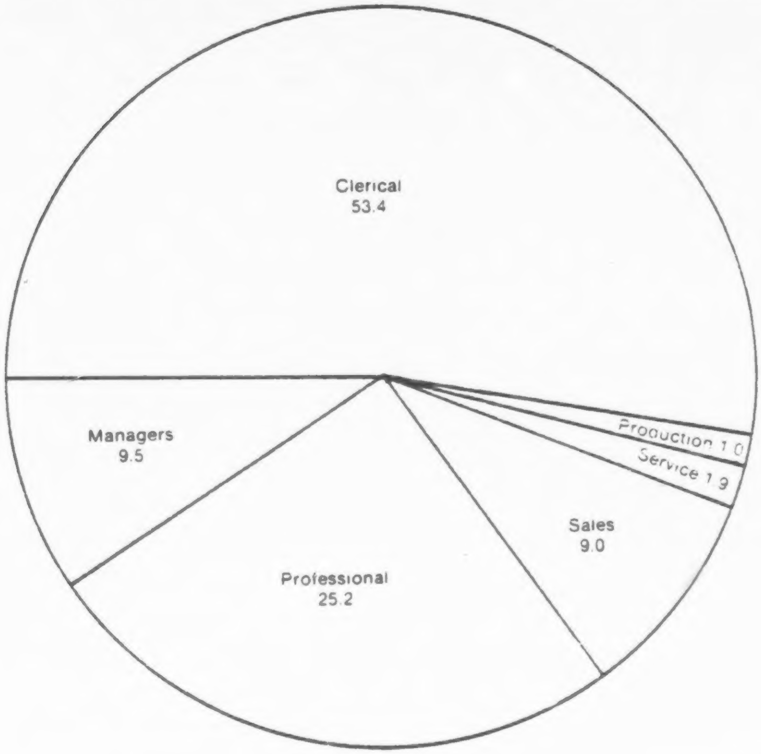
Pension,Health, and Welfare Funds (SIC 637)

Insurance Carriers, Not Elsewhere Classified (SIC 639)

The insurance industry has lost approximately 250 jobs, since the last survey conducted in 1981, a decrease of 0.5 percent, to reach its 1984 level at 50,650. Shifting market shares of insurance carriers to banks and other financial institutions has had an effect on this industry. More than 54 percent of insurance jobs in Massachusetts are in life insurance.

Most insurance workers fall into two occupational categories: either professional, paraprofessional, technicial occupations (25 percent); or clerical and administrative support occupations (53 percent).

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	General Office Clerks	3,640
2.	Sales Agents and Placers, Insurance	3,200
3.	Insurance Policy Processing Clerks	2,790
4.	All Other Management Support Workers	2,750
5.	All Other Secretaries	2,330
6.	Underwriters	1,970
7.	Insurance Adjusters, Examiners, Investigators	1,940
8.	Supervisor and Mgr./Suprv.-Clr./ Administrative Support	1,910
9.	All Other Managers and Administrators	1,790
10.	Computer Programmers	1,660

These 10 occupational categories make up 49.5% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
LIFE INSURANCE
SIC = 63
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	48,230	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	4,560	9.45	N/A
FINANCIAL MANAGERS	530	1.10	11
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	210	0.44	14
PURCHASING MANAGERS	50	0.10	24
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	330	0.68	26
ADMINISTRATIVE SERVICES MANAGERS	260	0.54	11
FOOD SERVICE AND LODGING MANAGERS	20	0.04	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	1,380	2.86	20
ALL OTHER MANAGERS AND ADMINISTRATORS	1,790	3.71	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	12,150	25.19	N/A
UNDERWRITERS	1,970	4.08	18
CREDIT ANALYSTS	90	0.19	45
ACCOUNTANTS AND AUDITORS	980	2.03	16
BUDGET ANALYSTS	150	0.31	18
ALL OTHER FINANCIAL SPECIALISTS	350	0.73	48
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	50	0.10	34
SPECIAL AGENTS, INSURANCE	240	0.50	37
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	290	0.60	17
ALL OTHER MANAGEMENT SUPPORT WORKERS	2,750	5.70	N/A
ALL OTHER ENGINEERS	130	0.27	N/A
DRAFTERS	10	0.02	12
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	40	0.08	47
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	1,030	2.14	13
COMPUTER PROGRAMMERS	1,660	3.44	9
COMPUTER PROGRAMMER AIDES	130	0.27	39
OPER & SYS RESEARCHERS & ANALYST,EXC COMMUNI	410	0.85	13
STATISTICIANS	110	0.23	31
ACTUARIES	340	0.70	34
FINANCIAL ANALYSTS, STATISTICAL	180	0.37	7
ALL OTHER MATHEMATICAL SCIENTISTS	40	0.08	37
MATHEMATICAL TECHNICIANS	30	0.06	17
ECONOMISTS,INCLUDING MARKET RESEARCH ANALYSTS	100	0.21	9
LAWYERS	380	0.79	31
LAW CLERKS	20	0.04	16
PARALEGAL PERSONNEL	50	0.10	11
TITLE EXAMINERS AND ABSTRACTORS	10	0.02	14
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	20	0.04	33
ALL OTHER TEACHERS AND INSTRUCTORS	10	0.02	N/A
REGISTERED NURSES	60	0.12	16

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
LIFE INSURANCE
SIC = 63
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	*EMPLOYMENT*		
	NUMBER[1]	*PERCENT OF TOTAL*	*RELATIVE ERROR %*
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	*110*	*0.23*	*N/A*
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	*70*	*0.15*	*20*
PHOTOGRAPHERS	*10*	*0.02*	*10*
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	*340*	*0.70*	*47*
SALES AND RELATED OCCUPATIONS	*4,360*	*9.04*	*N/A*
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	*670*	*1.39*	*15*
SALES AGENTS AND PLACERS, INSURANCE	*3,200*	*6.63*	*28*
BROKERS, REAL ESTATE	*10*	*0.02*	*N/A*
APPRAISERS, REAL ESTATE	*20*	*0.04*	*N/A*
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	*400*	*0.83*	*27*
ALL OTHER SALES AND RELATED WORKERS	*70*	*0.15*	*22*
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	*25,770*	*53.43*	*N/A*
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	*1,910*	*3.96*	*14*
INSURANCE ADJUSTERS, EXAMINERS, INVESTIGATORS	*1,940*	*4.02*	*47*
INSURANCE EXAMINING CLERKS	*560*	*1.16*	*12*
INSURANCE CLAIMS CLERKS	*1,200*	*2.49*	*23*
INSURANCE POLICY PROCESSING CLERKS	*2,790*	*5.78*	*18*
BILL AND ACCOUNT COLLECTORS	*130*	*0.27*	*39*
LIBRARY ASSISTANTS AND BOOKMOBILE DRIVERS	*20*	*0.04*	*36*
REAL ESTATE CLERKS	*20*	*0.04*	*17*
LEGAL SECRETARIES	*190*	*0.39*	*41*
ALL OTHER SECRETARIES	*2,230*	*4.62*	*11*
STENOGRAPHERS	*60*	*0.12*	*46*
RECEPTIONIST AND INFORMATION CLERKS	*240*	*0.50*	*28*
TYPISTS	*1,160*	*2.41*	*34*
TYPISTS, WORD PROCESSING EQUIPMENT	*430*	*0.89*	*26*
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	*100*	*0.21*	*15*
CORRESPONDENCE CLERKS	*370*	*0.77*	*50*
FILE CLERKS	*1,310*	*2.72*	*19*
STATISTICAL CLERKS	*380*	*0.79*	*17*
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	*1,450*	*3.01*	*15*
PAYROLL AND TIMEKEEPING CLERKS	*100*	*0.21*	*13*
BILLING, COST AND RATE CLERKS	*530*	*1.10*	*30*
GENERAL OFFICE CLERKS	*3,640*	*7.55*	*11*
BILLING, POSTING, CALCULATING MACH. OPERATORS	*50*	*0.10*	*27*
MAIL MACH. OPERATORS, PREPARATION & HANDLING	*90*	*0.19*	*7*
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	*880*	*1.82*	*36*
PERIPHERAL EDP EQUIPMENT OPERATORS	*150*	*0.31*	*18*
DATA ENTRY KEYERS, EXCEPT COMPOSING	*940*	*1.95*	*24*
ALL OTHER OFFICE MACHINE OPERATORS	*320*	*0.66*	*N/A*

---

1 - Summed parts may not equal totals because of rounding.
*** - Employment less than 10*
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
LIFE INSURANCE
SIC = 63
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SWITCHBOARD OPERATORS	160	0.33	18
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	460	0.95	11
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	100	0.21	30
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	60	0.12	34
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	1,820	3.77	N/A
SERVICE OCCUPATIONS	930	1.93	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	130	0.27	21
GUARDS AND WATCH GUARDS	190	0.39	4
ALL OTHER PROTECTIVE SERVICE WORKERS	10	0.02	N/A
FOOD & BEVERAGE PREPARATION & SERVICE OCCUP.	260	0.54	7
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	290	0.60	21
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	50	0.10	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	20	0.04	N/A
GARDENERS AND GROUNDSKEEPERS, EXCEPT FARM	20	0.04	12
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	450	0.93	N/A
SUPERVISORS-CONSTRUCTION & EXTRACTIVE WORKERS	20	0.04	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.02	N/A
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	120	0.25	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	10	0.02	20
CARPENTERS	10	0.02	N/A
ELECTRICIANS	50	0.10	5
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	20	0.04	11
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	20	0.04	N/A
ALL OTHER EXTRACTIVE WORKERS, EXCEPT HELPERS	10	0.02	N/A
PRECISION COMPOSITORS, TYPESETTERS, ARRANGERS	20	0.04	N/A
JOB PRINTERS	50	0.10	9
ALL OTHER PRECISION WORKERS	20	0.04	N/A
MACHINE SETTER,SET-UP OPERATOR, OPER & TENDER	10	0.02	N/A
HAND WORKING OCC'S,INCLUDING ASSEMBLER & FAB.	10	0.02	N/A
STATIONARY ENGINEERS	40	0.08	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.02	12
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	20	0.04	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	20	0.04	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
LIFE INSURANCE
SIC = 631
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	25,300	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	2,310	9.13	N/A
FINANCIAL MANAGERS	360	1.42	2
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	100	0.40	8
PURCHASING MANAGERS	20	0.08	5
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	170	0.67	7
ADMINISTRATIVE SERVICES MANAGERS	190	0.75	7
PROPERTY & REAL ESTATE MGRS & ADMINISTRATORS	50	0.20	10
FOOD SERVICE AND LODGING MANAGERS	10	0.04	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	680	2.69	4
ALL OTHER MANAGERS AND ADMINISTRATORS	720	2.85	5
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	6,480	25.61	N/A
UNDERWRITERS	640	2.53	4
ACCOUNTANTS AND AUDITORS	430	1.70	6
BUDGET ANALYSTS	60	0.24	3
ALL OTHER FINANCIAL SPECIALISTS	230	0.91	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.04	9
SPECIAL AGENTS, INSURANCE	120	0.47	25
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	160	0.63	2
CLAIM EXAMINER, PROPERTY & CASUALTY INSURANCE	140	0.55	14
ALL OTHER MANAGEMENT SUPPORT WORKERS	1,370	5.42	N/A
SAFETY ENGINEERS, EXCEPT MINING	20	0.08	24
ALL OTHER ENGINEERS	20	0.08	N/A
DRAFTERS	10	0.04	20
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	40	0.16	24
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	670	2.65	2
COMPUTER PROGRAMMERS	1,340	5.30	1
COMPUTER PROGRAMMER AIDES	80	0.32	3
OPER & SYS RESEARCHERS & ANALYST,EXC COMMUNI	130	0.51	5
STATISTICIANS	80	0.32	N/A
ACTUARIES	260	1.03	3
FINANCIAL ANALYSTS, STATISTICAL	140	0.55	9
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.04	N/A
MATHEMATICAL TECHNICIANS	20	0.08	N/A
ECONOMISTS,INCLUDING MARKET RESEARCH ANALYSTS	70	0.28	N/A
LAWYERS	180	0.71	4
LAW CLERKS	10	0.04	N/A
PARALEGAL PERSONNEL	20	0.08	6
TITLE EXAMINERS AND ABSTRACTORS	10	0.04	14
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	20	0.08	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
LIFE INSURANCE
SIC = 631
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
LIBRARIANS, PROFESSIONAL	10	0.04	N/A
REGISTERED NURSES	30	0.12	10
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	30	0.12	N/A
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	50	0.20	5
PHOTOGRAPHERS	10	0.04	10
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	100	0.40	4
SALES AND RELATED OCCUPATIONS	3,110	12.29	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	470	1.86	15
SALES AGENTS AND PLACERS, INSURANCE	2,310	9.13	14
BROKERS, REAL ESTATE	10	0.04	N/A
APPRAISERS, REAL ESTATE	20	0.08	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	280	1.11	27
ALL OTHER SALES AND RELATED WORKERS	30	0.12	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	12,470	49.29	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	990	3.91	5
INSURANCE ADJUSTERS, EXAMINERS, INVESTIGATORS	420	1.66	10
INSURANCE APPRAISERS, AUTO DAMAGE	60	0.24	24
INSURANCE EXAMINING CLERKS	280	1.11	18
INSURANCE CLAIMS CLERKS	520	2.06	14
INSURANCE POLICY PROCESSING CLERKS	1,490	5.89	6
BILL AND ACCOUNT COLLECTORS	60	0.24	15
LIBRARY ASSISTANTS AND BOOKMOBILE DRIVERS	10	0.04	N/A
REAL ESTATE CLERKS	10	0.04	N/A
LEGAL SECRETARIES	90	0.36	7
ALL OTHER SECRETARIES	1,030	4.07	6
STENOGRAPHERS	20	0.08	36
RECEPTIONIST AND INFORMATION CLERKS	100	0.40	10
TYPISTS	410	1.62	31
TYPISTS, WORD PROCESSING EQUIPMENT	250	0.99	24
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	50	0.20	2
CORRESPONDENCE CLERKS	170	0.67	9
FILE CLERKS	480	1.90	4
STATISTICAL CLERKS	270	1.07	6
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	930	3.68	3
PAYROLL AND TIMEKEEPING CLERKS	60	0.24	7
BILLING, COST AND RATE CLERKS	250	0.99	11
GENERAL OFFICE CLERKS	2,440	9.64	6
DUPLICATING MACHINE OPERATORS	70	0.28	2
MAIL MACH. OPERATORS, PREPARATION & HANDLING	60	0.24	2
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	680	2.69	45

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
LIFE INSURANCE
SIC = 631
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PERIPHERAL EDP EQUIPMENT OPERATORS	50	0.20	4
DATA ENTRY KEYERS, EXCEPT COMPOSING	320	1.26	34
ALL OTHER OFFICE MACHINE OPERATORS	150	0.59	1
SWITCHBOARD OPERATORS	40	0.16	4
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	290	1.15	2
MESSENGERS	30	0.12	3
STOCK CLERKS-STOCKROOM, WAREHOUSE STORAGE YARD	60	0.24	6
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	20	0.08	9
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	340	1.34	N/A
SERVICE OCCUPATIONS	620	2.45	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	40	0.16	5
GUARDS AND WATCH GUARDS	170	0.67	5
FOOD & BEVERAGE PREPARATION & SERVICE OCCUP.	240	0.95	N/A
JANITORS, CLEANERS, EXCEPT MAIDS, HOUSE CLEANERS	120	0.47	18
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	30	0.12	N/A
ALL OTHER SERVICE WORKERS	10	0.04	N/A
AGRICULTURAL, FORESTRY, FISHING, RELATED OCCUP	10	0.04	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	310	1.23	N/A
SUPERVISORS-CONSTRUCTION & EXTRACTIVE WORKERS	20	0.08	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.04	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	50	0.20	3
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	10	0.04	N/A
CARPENTERS	10	0.04	N/A
ELECTRICIANS	40	0.16	N/A
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	20	0.08	6
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	20	0.08	N/A
ALL OTHER EXTRACTIVE WORKERS, EXCEPT HELPERS	10	0.04	N/A
PRECISION COMPOSITORS, TYPESETTERS, ARRANGERS	10	0.04	N/A
JOB PRINTERS	30	0.12	12
ALL OTHER PRECISION WORKERS	20	0.08	N/A
MACHINE SETTER, SET-UP OPERATOR, OPER & TENDER	10	0.04	N/A
HAND WORKING OCC'S, INCLUDING ASSEMBLER & FAB.	10	0.04	N/A
STATIONARY ENGINEERS	40	0.16	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	10	0.04	N/A
ALL OTHER HELPERS, LABORERS, MAT'L MOVERS HAND	10	0.04	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MEDICAL SERVICE AND HEALTH INSURANCE
SIC = 632
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	6,040	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	350	5.79	N/A
FINANCIAL MANAGERS	40	0.66	15
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.33	13
PURCHASING MANAGERS	10	0.17	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	30	0.50	18
ADMINISTRATIVE SERVICES MANAGERS	20	0.33	25
PROPERTY & REAL ESTATE MGRS & ADMINISTRATORS	20	0.33	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	90	1.49	10
ALL OTHER MANAGERS AND ADMINISTRATORS	120	1.99	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	1,460	24.17	N/A
UNDERWRITERS	70	1.16	26
CREDIT ANALYSTS	10	0.17	N/A
ACCOUNTANTS AND AUDITORS	160	2.65	9
BUDGET ANALYSTS	40	0.66	N/A
ALL OTHER FINANCIAL SPECIALISTS	60	0.99	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.17	N/A
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	50	0.83	27
ALL OTHER MANAGEMENT SUPPORT WORKERS	350	5.79	N/A
ALL OTHER ENGINEERS	10	0.17	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	210	3.48	1
COMPUTER PROGRAMMERS	140	2.32	14
COMPUTER PROGRAMMER AIDES	20	0.33	28
OPER & SYS RESEARCHERS & ANALYST,EXC COMMUNI	170	2.81	1
ACTUARIES	20	0.33	20
FINANCIAL ANALYSTS, STATISTICAL	50	0.83	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	20	0.33	N/A
MATHEMATICAL TECHNICIANS	10	0.17	N/A
ECONOMISTS,INCLUDING MARKET RESEARCH ANALYSTS	10	0.17	N/A
LAWYERS	10	0.17	N/A
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	10	0.17	N/A
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	10	0.17	N/A
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	10	0.17	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	20	0.33	N/A
SALES AND RELATED OCCUPATIONS	420	6.95	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	90	1.49	25
SALES AGENTS AND PLACERS, INSURANCE	230	3.81	28
ALL OTHER SALES AND RELATED WORKERS	110	1.82	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	3,700	61.26	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	240	3.97	6

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MEDICAL SERVICE AND HEALTH INSURANCE
SIC = 632
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ADJUSTMENT CLERKS	220	3.64	2
INSURANCE ADJUSTERS, EXAMINERS, INVESTIGATORS	380	6.29	29
INSURANCE EXAMINING CLERKS	190	3.15	N/A
INSURANCE CLAIMS CLERKS	100	1.66	28
INSURANCE POLICY PROCESSING CLERKS	140	2.32	11
BILL AND ACCOUNT COLLECTORS	30	0.50	N/A
LEGAL SECRETARIES	10	0.17	40
ALL OTHER SECRETARIES	330	5.46	5
STENOGRAPHERS	20	0.33	N/A
RECEPTIONIST AND INFORMATION CLERKS	80	1.32	N/A
TYPISTS	90	1.49	12
TYPISTS, WORD PROCESSING EQUIPMENT	20	0.33	23
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.17	15
CORRESPONDENCE CLERKS	110	1.82	44
FILE CLERKS	250	4.14	16
STATISTICAL CLERKS	10	0.17	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	110	1.82	9
PAYROLL AND TIMEKEEPING CLERKS	20	0.33	N/A
BILLING, COST AND RATE CLERKS	30	0.50	8
GENERAL OFFICE CLERKS	520	8.61	3
BILLING, POSTING, CALCULATING MACH. OPERATORS	30	0.50	N/A
DUPLICATING MACHINE OPERATORS	10	0.17	N/A
MAIL MACH. OPERATORS, PREPARATION & HANDLING	20	0.33	15
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	100	1.66	7
PERIPHERAL EDP EQUIPMENT OPERATORS	70	1.16	N/A
ALL OTHER OFFICE MACHINE OPERATORS	260	4.30	N/A
SWITCHBOARD OPERATORS	30	0.50	21
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	40	0.66	9
MESSENGERS	10	0.17	N/A
STOCK CLERKS-STOCKROOM, WAREHOUSE STORAGE YARD	10	0.17	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	250	4.14	N/A
SERVICE OCCUPATIONS	70	1.16	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.17	N/A
GUARDS AND WATCH GUARDS	10	0.17	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	**	0.00	N/A
FOOD & BEVERAGE PREPARATION & SERVICE OCCUP.	10	0.17	N/A
JANITORS, CLEANERS, EXCEPT MAIDS, HOUSE CLEANERS	30	0.50	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	40	0.66	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.17	N/A
ALL OTHER EXTRACTIVE WORKERS, EXCEPT HELPERS	10	0.17	N/A

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MEDICAL SERVICE AND HEALTH INSURANCE
SIC = 632
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRECISION COMPOSITORS, TYPESETTERS, ARRANGERS	10	0.17	N/A
JOB PRINTERS	10	0.17	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	10	0.17	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
FIRE, MARINE, AND CASUALTY INSURANCE
SIC = 633
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	16,130	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,840	11.41	N/A
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	90	0.56	33
ALL OTHER MANAGERS AND ADMINISTRATORS	1,750	10.85	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	4,020	24.92	N/A
UNDERWRITERS	1,220	7.56	29
ALL OTHER FINANCIAL SPECIALISTS	560	3.47	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	1,100	6.82	N/A
ALL OTHER ENGINEERS	90	0.56	N/A
DRAFTERS	10	0.06	17
ALL OTHER MATHEMATICAL SCIENTISTS	560	3.47	N/A
ALL OTHER SOCIAL SCIENTISTS	20	0.12	N/A
LAW CLERKS	10	0.06	35
PARALEGAL PERSONNEL	20	0.12	22
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	180	1.12	N/A
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	40	0.25	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	210	1.30	N/A
SALES AND RELATED OCCUPATIONS	780	4.84	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	770	4.77	N/A
ALL OTHER SALES AND RELATED WORKERS	10	0.06	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	9,140	56.66	N/A
ALL OTHER SECRETARIES	880	5.46	N/A
ALL OTHER OFFICE MACHINE OPERATORS	590	3.66	N/A
SWITCHBOARD OPERATORS	80	0.50	35
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	70	0.43	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	7,520	46.62	N/A
SERVICE OCCUPATIONS	250	1.55	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	80	0.50	35
ALL OTHER PROTECTIVE SERVICE WORKERS	10	0.06	N/A
ALL OTHER FOOD SERVICE WORKERS	10	0.06	N/A
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	160	0.99	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	90	0.56	N/A
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	60	0.37	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	10	0.06	35
ELECTRICIANS	10	0.06	35
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.06	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	10	0.06	N/A

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

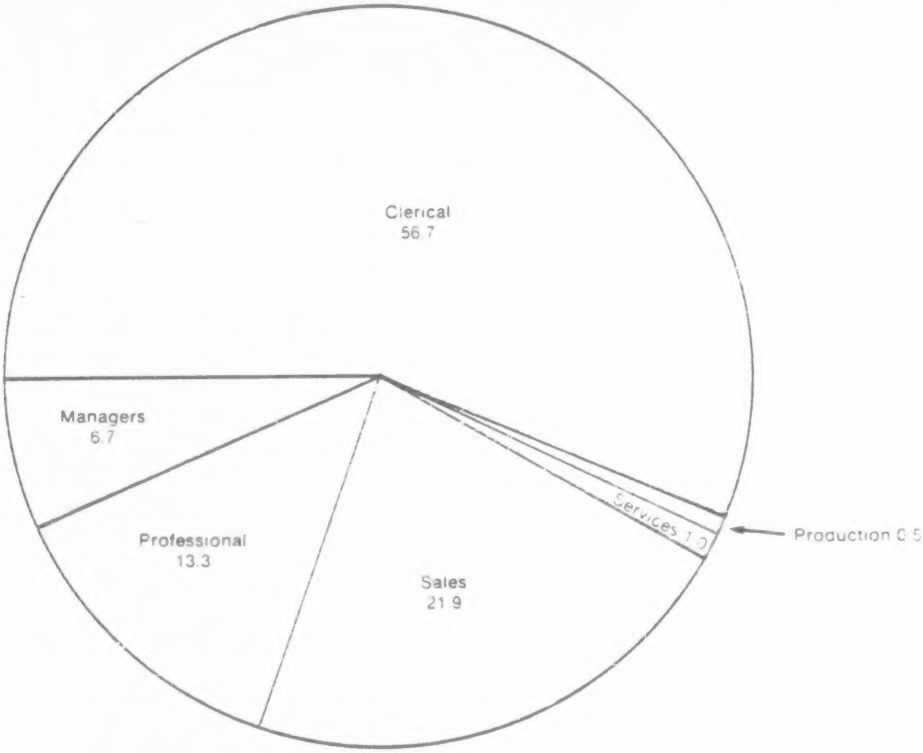
Insurance Agents, Brokers and Services (SIC 64)

This industry includes agents and brokers dealing in insurance, and also organizations offering services to insurance companies and to policy holders.

The insurance agents, brokers, and services industry grew 7.4 percent, an increase of 1,200 workers since 1981 reaching its 1984 employment level at 17,450. Clerical and administrative support occupations comprise more than 56 percent of all workers in this industry. More than one out of five workers is an insurance policy processing clerk.

INSURANCE AGENTS BROKERS AND SERVICES (SIC 64)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Insurance Policy Processing Clerks	3,490
2.	Sales Agents and Placers, Insurance	2,890
3.	Underwriters	1,250
4.	All Other Secretaries	990
5.	Bookkeeping Accounting and Auditing Clerks	950
6.	All Other Clerical & Admin. Support Workers	840
7.	Insurance Claims Clerks	750
8.	General Office Clerks	720
9.	Financial Managers	660
10.	First Line Supervisors and Managers/Supvs-Sales	600

These 10 occupational categories make up 81.1% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
INSURANCE AGENTS BROKERS & SERVICES
SIC = 64
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	16,200	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,090	6.73	N/A
FINANCIAL MANAGERS	660	4.07	14
FOOD SERVICE AND LODGING MANAGERS	10	0.06	N/A
ALL OTHER MANAGERS AND ADMINISTRATORS	420	2.59	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	2,150	13.27	N/A
UNDERWRITERS	1,250	7.72	19
ACCOUNTANTS AND AUDITORS	180	1.11	27
ALL OTHER FINANCIAL SPECIALISTS	10	0.06	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	360	2.22	N/A
ALL OTHER ENGINEERS	90	0.56	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	30	0.19	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	40	0.25	39
ALL OTHER MATHEMATICAL SCIENTISTS	140	0.86	N/A
ECONOMISTS,INCLUDING MARKET RESEARCH ANALYSTS	20	0.12	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	40	0.25	N/A
SALES AND RELATED OCCUPATIONS	3,550	21.91	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	600	3.70	17
SALES AGENTS AND PLACERS, INSURANCE	2,890	17.84	10
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	40	0.25	N/A
ALL OTHER SALES AND RELATED WORKERS	20	0.12	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	9,190	56.73	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	110	0.68	45
INSURANCE CLAIMS CLERKS	750	4.63	16
INSURANCE POLICY PROCESSING CLERKS	3,490	21.54	12
LIBRARY ASSISTANTS AND BOOKMOBILE DRIVERS	10	0.06	N/A
ALL OTHER SECRETARIES	990	6.11	N/A
RECEPTIONIST AND INFORMATION CLERKS	200	1.23	23
TYPISTS	310	1.91	32
TYPISTS, WORD PROCESSING EQUIPMENT	220	1.36	28
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.06	67
FILE CLERKS	430	2.65	22
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	950	5.86	11
GENERAL OFFICE CLERKS	720	4.44	23
ALL OTHER OFFICE MACHINE OPERATORS	90	0.56	N/A
SWITCHBOARD OPERATORS	70	0.43	36
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	20	0.12	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	840	5.19	N/A
SERVICE OCCUPATIONS	150	0.93	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.06	42

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
INSURANCE AGENTS BROKERS & SERVICES
SIC = 64
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
FOOD & BEVERAGE PREPARATION & SERVICE OCCUP.	40	0.25	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	40	0.25	49
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	40	0.25	N/A
ALL OTHER SERVICE WORKERS	20	0.12	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	70	0.43	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.06	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	20	0.12	15
MACHINE SETTER,SET-UP OPERATOR, OPER & TENDER	20	0.12	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	10	0.06	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Real Estate (SIC 65)

This industry includes real estate operators and owners and lessors of real property, as well as buyers, sellers, developers, agents, and brokers. The firms in this industry can be divided into the following groups:

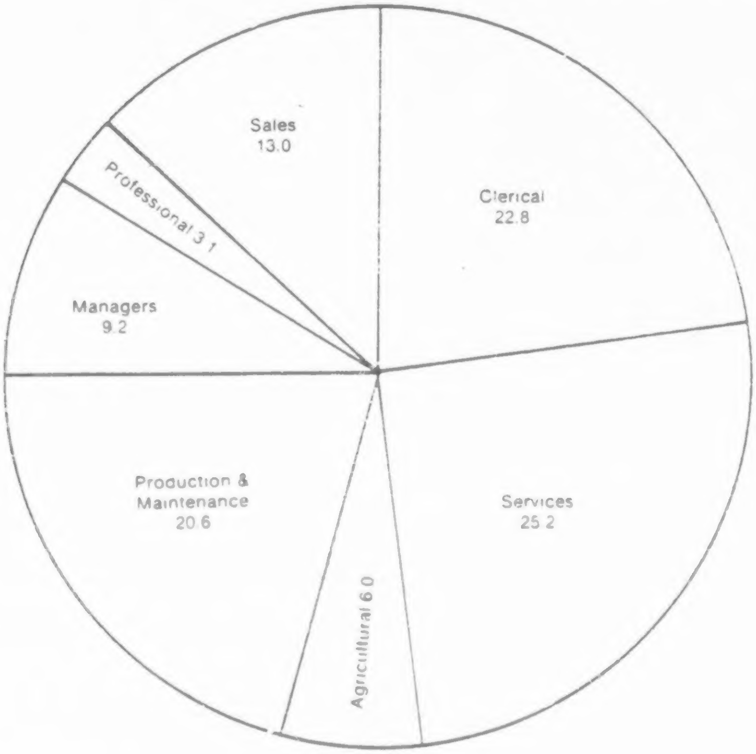
- Real Estate Operators and Lessors (SIC 651)
- Real Estate Agents and Managers (SIC 653)
- Title Abstract Offices (SIC 654)
- Subdividers and Developers (SIC 655)

From 1981 to 1984, employment in the real estate industry grew 23.6 percent, an increase of approximately 15,300 jobs. More than 6.5 percent of the total real estate industry is classified in the real estate agents and managers (SIC 653) industrial group. The current real estate demand is a result of a resurgence of new housing needs, high technologic growth, as well as changes in the demographic population.

The occupational composition within the real estate industry (SIC 65) is largely concentrated within two occupational categories: clerical and administrative support (22.8 percent); and service (25.2 percent). One should note that real estate agents or brokers who work strictly on a commission basis are not counted in these estimates.

REAL ESTATE (SIC 65)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Maintenance Repairers, General Utility	3,310
2.	Janitors, Cleaners, Except Maids, House Cleaners	3,120
3.	All Other Secretaries	1,910
4.	Guards and Watch Guards	1,520
5.	Gardeners and Groundskeepers, Except Farm	1,500
6.	Bookkeeping, Accounting, and Auditing Clerks	1,350
7.	First Line Supervisors & Managers/Supv - Sales	1,340
8.	All Other Clerical & Admin Support Workers	1,170
9.	Financial Managers	1,140
10.	All Other Sales Reps. and Salespersons Service	1,120

These 10 occupational categories make up 70.3% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
REAL ESTATE
SIC = 65
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	24,850	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	2,280	9.17	N/A
FINANCIAL MANAGERS	1,140	4.59	17
PURCHASING MANAGERS	20	0.08	74
PROPERTY & REAL ESTATE MGRS & ADMINISTRATORS	420	1.69	33
GENERAL MANAGERS AND TOP EXECUTIVES	290	1.17	34
ALL OTHER MANAGERS AND ADMINISTRATORS	420	1.69	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	770	3.10	N/A
ACCOUNTANTS AND AUDITORS	320	1.29	31
ALL OTHER FINANCIAL SPECIALISTS	20	0.08	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	160	0.64	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	40	0.16	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	30	0.12	N/A
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	140	0.56	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	60	0.24	N/A
SALES AND RELATED OCCUPATIONS	3,240	13.03	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	1,340	5.39	16
BROKERS, REAL ESTATE	660	2.65	20
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	1,120	4.51	N/A
ALL OTHER SALES AND RELATED WORKERS	110	0.44	64
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	5,670	22.81	N/A
ALL OTHER SECRETARIES	1,910	7.68	N/A
RECEPTIONIST AND INFORMATION CLERKS	400	1.61	22
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	1,350	5.43	11
PAYROLL AND TIMEKEEPING CLERKS	80	0.32	32
GENERAL OFFICE CLERKS	750	3.02	19
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	1,170	4.71	N/A
SERVICE OCCUPATIONS	6,270	25.22	N/A
GUARDS AND WATCH GUARDS	1,520	6.11	24
ALL OTHER PROTECTIVE SERVICE WORKERS	10	0.04	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	3,120	12.55	15
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	800	3.22	N/A
ALL OTHER SERVICE WORKERS	820	3.30	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	1,500	6.03	N/A
GARDENERS AND GROUNDSKEEPERS, EXCEPT FARM	1,500	6.03	11
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	5,130	20.64	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	210	0.84	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	3,310	13.31	13
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	70	0.28	N/A
CARPENTERS	460	1.85	24

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
REAL ESTATE
SIC = 65
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	520	2.09	27
ALL OTHER EXTRACTIVE WORKERS, EXCEPT HELPERS	110	0.44	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	190	0.76	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	260	1.05	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
REAL ESTATE OPERATORS AND LESSORS
SIC = 651
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	7,820	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	600	7.67	N/A
FINANCIAL MANAGERS	200	2.56	19
PURCHASING MANAGERS	10	0.13	45
MARKETING~~,ADVERTISING,~~PUBLIC RELATIONS MGRS.	50	0.64	36
ADMINISTRATIVE SERVICES MANAGERS	20	0.26	20
PROPERTY & REAL ESTATE MGRS & ADMINISTRATORS	190	2.43	38
GENERAL MANAGERS AND TOP EXECUTIVES	80	1.02	33
ALL OTHER MANAGERS AND ADMINISTRATORS	70	0.90	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	280	3.58	N/A
ACCOUNTANTS AND AUDITORS	180	2.30	49
ALL OTHER FINANCIAL SPECIALISTS	10	0.13	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	50	0.64	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.13	20
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.13	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	30	0.38	N/A
SALES AND RELATED OCCUPATIONS	650	8.31	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	200	2.56	22
BROKERS, REAL ESTATE	220	2.81	36
SALES AGENTS, REAL ESTATE	80	1.02	43
ALL OTHER SALES AND RELATED WORKERS	160	2.05	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,420	18.16	N/A
ALL OTHER SECRETARIES	350	4.48	N/A
RECEPTIONIST AND INFORMATION CLERKS	80	1.02	37
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	300	3.84	20
GENERAL OFFICE CLERKS	300	3.84	34
ALL OTHER OFFICE MACHINE OPERATORS	20	0.26	N/A
SWITCHBOARD OPERATORS	140	1.79	47
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	230	2.94	N/A
SERVICE OCCUPATIONS	2,990	38.24	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	60	0.77	34
GUARDS AND WATCH GUARDS	750	9.59	29
ALL OTHER FOOD SERVICE WORKERS	390	4.99	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	1,210	15.47	15
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	450	5.75	N/A
ALL OTHER SERVICE WORKERS	140	1.79	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	450	5.75	N/A
GARDENERS AND GROUNDSKEEPERS, EXCEPT FARM	450	5.75	24
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,430	18.29	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	60	0.77	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
REAL ESTATE OPERATORS AND LESSORS
SIC = 651
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
MAINTENANCE REPAIRERS, GENERAL UTILITY	930	11.89	N/A
CARPENTERS	110	1.41	47
ELECTRICIANS	40	0.51	46
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	180	2.30	30
ALL OTHER EXTRACTIVE WORKERS, EXCEPT HELPERS	10	0.13	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	90	1.15	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
SUBDIVIDERS AND DEVELOPERS
SIC = 655
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,960	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	180	9.18	N/A
FINANCIAL MANAGERS	90	4.59	12
ADMINISTRATIVE SERVICES MANAGERS	10	0.51	24
PROPERTY & REAL ESTATE MGRS & ADMINISTRATORS	20	1.02	37
GENERAL MANAGERS AND TOP EXECUTIVES	20	1.02	24
ALL OTHER MANAGERS AND ADMINISTRATORS	40	2.04	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	60	3.06	N/A
ACCOUNTANTS AND AUDITORS	40	2.04	24
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.51	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	10	0.51	N/A
SALES AND RELATED OCCUPATIONS	250	12.76	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	100	5.10	14
BROKERS, REAL ESTATE	20	1.02	32
SALES AGENTS, REAL ESTATE	110	5.61	31
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	10	0.51	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	340	17.35	N/A
ALL OTHER SECRETARIES	120	6.12	15
RECEPTIONIST AND INFORMATION CLERKS	20	1.02	19
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	80	4.08	12
PAYROLL AND TIMEKEEPING CLERKS	20	1.02	27
GENERAL OFFICE CLERKS	70	3.57	15
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.51	35
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	30	1.53	N/A
SERVICE OCCUPATIONS	70	3.57	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.51	33
ALL OTHER FOOD SERVICE WORKERS	10	0.51	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	50	2.55	45
ALL OTHER SERVICE WORKERS	10	0.51	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	740	37.76	N/A
GARDENERS AND GROUNDSKEEPERS, EXCEPT FARM	740	37.76	9
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	330	16.84	N/A
SUPERVISORS-CONSTRUCTION & EXTRACTIVE WORKERS	10	0.51	41
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	30	1.53	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	110	5.61	N/A
CARPENTERS	70	3.57	29
ELECTRICIANS	10	0.51	49
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	20	1.02	38
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	10	0.51	49
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.51	40

---

1 - Summed parts may not equal totals because of rounding.

- Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
SUBDIVIDERS AND DEVELOPERS
SIC = 655
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	20	1.02	47
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	50	2.55	33

[1] - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Hotels and Other Lodging Places (SIC 70)

This industry includes commercial and institutional establishments engaged in furnishing lodging, or lodging and meals, and camping space and camping facilities, on a fee basis. The firms in this industry can be divided into the following groups:

Hotels, Motels, and Tourist Courts (SIC 701)
Rooming and Boarding Houses (SIC 702)
Camps and Trailer Parks (SIC 703)
Organization Hotels and Lodging Houses, on Membership Basis (SIC 704)

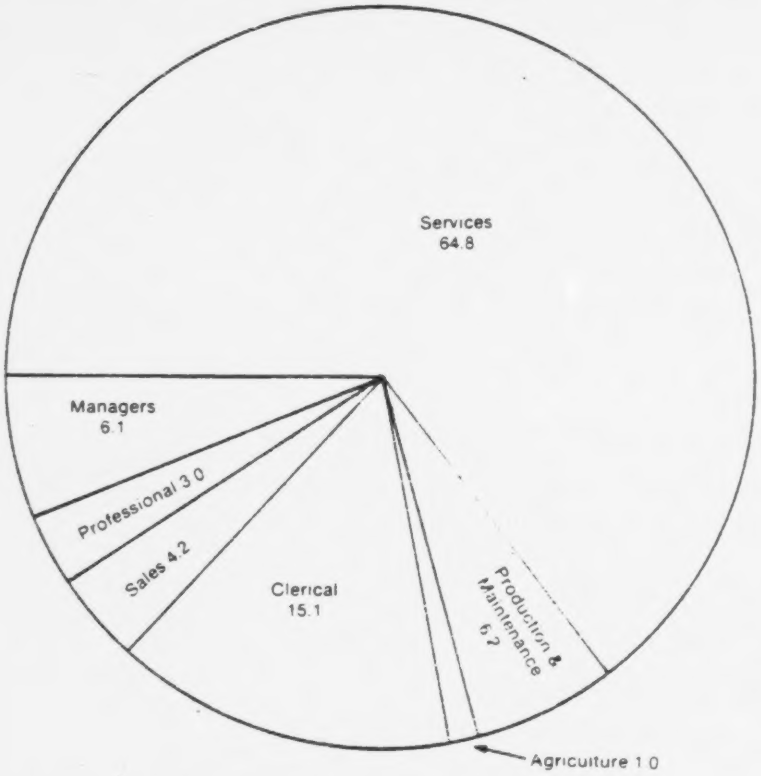
Employment in this industry is dominated by SIC 701, Hotels, Motels, and Tourist courts which account for slightly more than 96 percent of the 1984 industry total (SIC 70) of more than 28,000 jobs. Since 1981, employment in the Hotel, Motel, and Tourist courts (SIC 701) has grown 22.1 percent to reach its 1984 level at 27,000. This growth was largely due to a significant number of new hotels within the Boston area.

The occupational composition of the hotel industry is concentrated within service occupations. This dominant occupational category accounts for nearly 2 out of every 3 workers. The 1984 occupational structure varies somewhat compared to those produced from the 1981 survey.

	Distribution	
	1984	1981
Managerial and Administrative	6.1	5.8
Professional, Paraprofessional, Technical	3.0	2.7
Sales	4.2	1.0
Clerical & Administrative Support	15.0	16.9
Service and Agricultural Related	65.5	66.6
Production, Construction & Maintenance	6.2	7.1

HOTELS AND OTHER LODGING PLACES (SIC 70)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Maids and Housekeeping Cleaners	5,630
2.	Waiters and Waitresses	3,740
3.	Hotel Desk Clerks	2,220
4.	Bartenders	1,410
5.	Cooks,Restaurants	1,130
6.	Dining Room, Cafeteria Attendants, Bar Helpers	1,050
7.	Janitors, Cleaners, Except Maids, House Cleaners	810
8.	Housekeepers	790
9.	Maintenance Repairers, General Utility	740
10.	All Other Food Service Workers	730

These occupational categories make up 63.6% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
HOTELS AND OTHER LODGING PLACES
SIC = 70
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	28,680	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,740	6.07	N/A
FINANCIAL MANAGERS	260	0.91	27
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	60	0.21	13
PURCHASING MANAGERS	30	0.10	15
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	100	0.35	15
ADMINISTRATIVE SERVICES MANAGERS	80	0.28	39
FOOD SERVICE AND LODGING MANAGERS	690	2.41	16
GENERAL MANAGERS AND TOP EXECUTIVES	280	0.98	20
ALL OTHER MANAGERS AND ADMINISTRATORS	240	0.84	22
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	860	3.00	N/A
ACCOUNTANTS AND AUDITORS	180	0.63	21
BUDGET ANALYSTS	20	0.07	37
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	20	0.07	26
ALL OTHER MANAGEMENT SUPPORT WORKERS	200	0.70	N/A
ENGINEERS	50	0.17	27
ENGINEERING & RELATED TECHNICIANS & TECHNOL.	30	0.10	43
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.03	28
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.03	N/A
ALL OTHER SOCIAL SCIENTISTS	290	1.01	N/A
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	10	0.03	N/A
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	10	0.03	22
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	50	0.17	N/A
SALES AND RELATED OCCUPATIONS	1,210	4.22	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	170	0.59	29
SALES AGENTS, SELECTED BUSINESS SERVICES	220	0.77	15
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	60	0.21	25
SALESPERSONS, RETAIL	60	0.21	39
CASHIERS	690	2.41	10
ALL OTHER SALES AND RELATED WORKERS	20	0.07	37
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	4,320	15.06	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	160	0.56	22
TRAVEL CLERKS	60	0.21	20
HOTEL DESK CLERKS	2,220	7.74	14
SECRETARIES	320	1.12	9
STENOGRAPHERS	10	0.03	43
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.03	44
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	20	0.07	17
FILE CLERKS	10	0.03	36
PROCUREMENT CLERKS	10	0.03	41

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
HOTELS AND OTHER LODGING PLACES
SIC = 70
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	410	1.43	34
PAYROLL AND TIMEKEEPING CLERKS	130	0.45	36
BILLING, COST AND RATE CLERKS	40	0.14	21
ALL OTHER OFFICE MACHINE OPERATORS	10	0.03	N/A
SWITCHBOARD OPERATORS	350	1.22	40
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	70	0.24	19
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	30	0.10	24
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	440	1.53	N/A
SERVICE OCCUPATIONS	18,570	64.75	N/A
HOUSEKEEPERS	790	2.75	16
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	110	0.38	29
DETECTIVES AND INVESTIGATORS, EXCEPT PUBLIC	20	0.07	44
GUARDS AND WATCH GUARDS	280	0.98	12
HOSTS,HOSTESSES-RESTAURANT,LOUNGE,COFFEE SHOP	360	1.26	11
BARTENDERS	1,410	4.92	29
WAITERS AND WAITRESSES	3,740	13.04	9
FOOD SERVERS, OUTSIDE	410	1.43	9
DINING ROOM, CAFETERIA ATTENDANTS,BAR HELPERS	1,050	3.66	9
COUNTER ATTENDANTS-LUNCHROOM,COFFEE SHOP, ETC	110	0.38	38
BAKERS, BREAD AND PASTRY	90	0.31	13
BUTCHERS AND MEAT CUTTERS	40	0.14	17
COOKS, RESTAURANT	1,130	3.94	10
COOKS, INSTITUTION OR CAFETERIA	90	0.31	32
COOKS, SHORT ORDER	100	0.35	24
FOOD PREPARATION WORKERS	710	2.48	15
COMBINED FOOD PREPARATION & SERVICE WORKERS	40	0.14	48
ALL OTHER FOOD SERVICE WORKERS	730	2.55	N/A
MAIDS AND HOUSEKEEPING CLEANERS	5,630	19.63	8
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	810	2.82	14
ELEVATOR OPERATORS	30	0.10	45
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	140	0.49	28
AMUSEMENT AND RECREATION ATTENDANTS	130	0.45	43
BAGGAGE PORTERS AND BELLHOPS	450	1.57	8
ALL OTHER SERVICE WORKERS	180	0.63	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	210	0.73	N/A
GARDENERS AND GROUNDSKEEPERS, EXCEPT FARM	200	0.70	29
ALL OTHER AGRIC,FOR,FISH, & RELATED WORKERS	10	0.03	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,770	6.17	N/A
SUPERVISORS-CONSTRUCTION & EXTRACTIVE WORKERS	10	0.03	35
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.03	43

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
HOTELS AND OTHER LODGING PLACES
SIC = 70
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
MAINTENANCE REPAIRERS, GENERAL UTILITY	740	2.58	16
HEATING, A/C & REFRIG MECHANICS & INSTALLERS	10	0.03	26
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	50	0.17	44
CARPENTERS	30	0.10	19
ELECTRICIANS	20	0.07	20
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	110	0.38	32
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	20	0.07	28
ALL OTHER EXTRACTIVE WORKERS, EXCEPT HELPERS	20	0.07	50
LAUNDRY,DRYCLEANING MACH OPER,TEND,EXC PRESS	540	1.88	13
ALL OTHER HAND WORKERS	10	0.03	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	10	0.03	N/A
TAXI DRIVERS AND CHAUFFEURS	20	0.07	41
ALL OTHER MOTOR VEHICLE OPERATORS	30	0.10	N/A
PARKING LOT ATTENDANTS	60	0.21	31
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	30	0.10	37
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	60	0.21	39

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
HOTELS, MOTELS AND TOURIST COURTS
SIC = 701
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	27,920	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,650	5.91	N/A
FINANCIAL MANAGERS	230	0.82	29
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	60	0.21	12
PURCHASING MANAGERS	30	0.11	15
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	100	0.36	15
ADMINISTRATIVE SERVICES MANAGERS	80	0.29	39
FOOD SERVICE AND LODGING MANAGERS	640	2.29	14
GENERAL MANAGERS AND TOP EXECUTIVES	280	1.00	20
ALL OTHER MANAGERS AND ADMINISTRATORS	240	0.86	22
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	590	2.11	N/A
ACCOUNTANTS AND AUDITORS	180	0.64	21
BUDGET ANALYSTS	20	0.07	37
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	20	0.07	26
COST ESTIMATORS	10	0.04	63
ALL OTHER MANAGEMENT SUPPORT WORKERS	190	0.68	N/A
ENGINEERS	50	0.18	27
ENGINEERING & RELATED TECHNICIANS & TECHNOL.	30	0.11	43
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.04	28
ALL OTHER MATHEMATICAL SCIENTISTS	30	0.11	N/A
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	10	0.04	N/A
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	10	0.04	22
MUSICIANS, INSTRUMENTAL	30	0.11	75
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	30	0.11	N/A
SALES AND RELATED OCCUPATIONS	1,190	4.26	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	170	0.61	29
SALES AGENTS, SELECTED BUSINESS SERVICES	210	0.75	15
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	60	0.21	25
SALESPERSONS, RETAIL	50	0.18	28
CASHIERS	680	2.44	9
ALL OTHER SALES AND RELATED WORKERS	20	0.07	37
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	4,280	15.33	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	160	0.57	22
TRAVEL CLERKS	60	0.21	20
HOTEL DESK CLERKS	2,220	7.95	14
SECRETARIES	320	1.15	8
STENOGRAPHERS	10	0.04	43
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.04	44
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	20	0.07	17
FILE CLERKS	10	0.04	36

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
HOTELS, MOTELS AND TOURIST COURTS
SIC = 701
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PROCUREMENT CLERKS	10	0.04	41
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	410	1.47	34
PAYROLL AND TIMEKEEPING CLERKS	130	0.47	36
BILLING, COST AND RATE CLERKS	40	0.14	21
SWITCHBOARD OPERATORS	350	1.25	40
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	70	0.25	19
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	30	0.11	24
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	420	1.50	N/A
SERVICE OCCUPATIONS	18,320	65.62	N/A
HOUSEKEEPERS	770	2.76	16
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	110	0.39	29
DETECTIVES AND INVESTIGATORS, EXCEPT PUBLIC	20	0.07	44
GUARDS AND WATCH GUARDS	270	0.97	11
HOSTS,HOSTESSES-RESTAURANT,LOUNGE,COFFEE SHOP	360	1.29	11
BARTENDERS	1,410	5.05	29
WAITERS AND WAITRESSES	3,740	13.40	9
FOOD SERVERS, OUTSIDE	410	1.47	9
DINING ROOM, CAFETERIA ATTENDANTS,BAR HELPERS	1,050	3.76	9
COUNTER ATTENDANTS-LUNCHROOM,COFFEE SHOP, ETC	110	0.39	38
BAKERS, BREAD AND PASTRY	90	0.32	13
BUTCHERS AND MEAT CUTTERS	40	0.14	17
COOKS, RESTAURANT	1,130	4.05	10
COOKS, INSTITUTION OR CAFETERIA	50	0.18	20
COOKS, SHORT ORDER	100	0.36	24
FOOD PREPARATION WORKERS	680	2.44	15
COMBINED FOOD PREPARATION & SERVICE WORKERS	40	0.14	48
ALL OTHER FOOD SERVICE WORKERS	720	2.58	16
MAIDS AND HOUSEKEEPING CLEANERS	5,500	19.70	8
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	800	2.87	14
ELEVATOR OPERATORS	30	0.11	45
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	140	0.50	28
AMUSEMENT AND RECREATION ATTENDANTS	130	0.47	43
BAGGAGE PORTERS AND BELLHOPS	450	1.61	8
ALL OTHER SERVICE WORKERS	180	0.64	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	200	0.72	N/A
GARDENERS AND GROUNDSKEEPERS, EXCEPT FARM	200	0.72	29
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,690	6.05	N/A
SUPERVISORS-CONSTRUCTION & EXTRACTIVE WORKERS	10	0.04	35
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.04	43
MAINTENANCE REPAIRERS, GENERAL UTILITY	660	2.36	14

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
HOTELS, MOTELS AND TOURIST COURTS
SIC = 701
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
HEATING, A/C & REFRIG MECHANICS & INSTALLERS	10	0.04	26
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	50	0.18	44
CARPENTERS	30	0.11	19
ELECTRICIANS	20	0.07	20
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	110	0.39	32
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	20	0.07	28
ALL OTHER EXTRACTIVE WORKERS, EXCEPT HELPERS	20	0.07	50
LAUNDRY,DRYCLEANING MACH OPER,TEND,EXC PRESS	540	1.93	13
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	10	0.04	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	10	0.04	N/A
TAXI DRIVERS AND CHAUFFEURS	20	0.07	41
ALL OTHER MOTOR VEHICLE OPERATORS	30	0.11	N/A
PARKING LOT ATTENDANTS	60	0.21	31
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	30	0.11	37
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	60	0.21	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Personal Services (SIC 72)

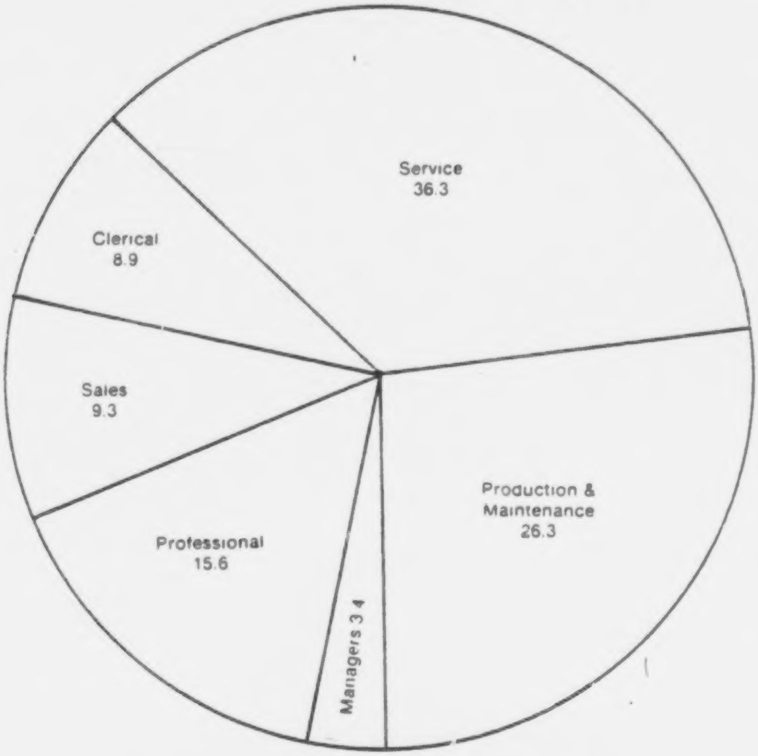
This industry includes establishments primarily engaged in providing services generally involving the care of the person or his/her apparel, such as laundries, dry cleaning plants, portrait photographic studios and beauty and barber shops.

Employment of personal services has grown 15.6 percent since 1981, an increase of 3,900 jobs, to reach its 1984 level at 29,000. This industry is dominated by two industrial groups: laundry, cleaning, and garment services (37.2 percent) and beauty and barber shops (35.5 percent). The growth within the various personal services has largely been the result of the increased participation of women in the labor force.

The occupational structure of the personal services industry is comprised mostly within the service occupational category (36.3 percent) and the production, construction and maintenance occupational category (26.3 percent).

PERSONAL SERVICES (SIC 72)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Hairdressers, Hairstylists, and Cosmetologists	8,010
2.	All Other Teachers and Instructors	2,030
3.	Laundry, Dry Cleaning, Mach. Oper., Tend., Exec.Pers.	1,910
4.	Counter and Rental Clerks	1,840
5.	Pressing, Mach. Opers. and Tenders - Textile, Garment	1,300
6.	All Other Financial Specialists	1,090
7.	All Other Freight, Stock, Material Movers, Hand	830
8.	All Other Sales and Related Workers	800
9.	Receptionists and Information Clerks	680
10.	All Other Clerical and Administrative Support Workers	590

These 10 occupational categories make up 66.7% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
PERSONAL SERVICES
SIC = 72
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	28,630	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	980	3.42	N/A
FINANCIAL MANAGERS	510	1.78	20
GENERAL MANAGERS AND TOP EXECUTIVES	230	0.80	34
ALL OTHER MANAGERS AND ADMINISTRATORS	230	0.80	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	4,460	15.58	N/A
ACCOUNTANTS AND AUDITORS	170	0.59	30
ALL OTHER FINANCIAL SPECIALISTS	1,090	3.81	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.03	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.03	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.03	N/A
ALL OTHER TEACHERS AND INSTRUCTORS	2,030	7.09	N/A
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	100	0.35	N/A
PHOTOGRAPHERS	260	0.91	39
FUNERAL DIRECTORS AND MORTICIANS	480	1.68	17
EMBALMERS	220	0.77	40
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	80	0.28	N/A
SALES AND RELATED OCCUPATIONS	2,670	9.33	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	40	0.14	N/A
COUNTER AND RENTAL CLERKS	1,840	6.43	26
ALL OTHER SALES AND RELATED WORKERS	800	2.79	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	2,540	8.87	N/A
SECRETARIES	290	1.01	29
RECEPTIONIST AND INFORMATION CLERKS	680	2.38	29
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	540	1.89	17
PAYROLL AND TIMEKEEPING CLERKS	80	0.28	40
GENERAL OFFICE CLERKS	270	0.94	31
ALL OTHER OFFICE MACHINE OPERATORS	60	0.21	N/A
ALL OTHER COMMUNICATIONS EQUIPMENT OPERATORS	10	0.03	N/A
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	20	0.07	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	590	2.06	N/A
SERVICE OCCUPATIONS	10,380	36.26	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	520	1.82	33
ALL OTHER PROTECTIVE SERVICE WORKERS	10	0.03	N/A
ALL OTHER FOOD SERVICE WORKERS	20	0.07	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	430	1.50	44
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	50	0.17	N/A
BARBERS	490	1.71	31
HAIRDRESSERS, HAIRSTYLISTS, & COSMETOLOGISTS	8,010	27.98	6
MANICURISTS	90	0.31	50

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PERSONAL SERVICES
SIC = 72
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SHAMPOOERS	330	1.15	33
FUNERAL ATTENDANTS	250	0.87	39
ALL OTHER SERVICE WORKERS	200	0.70	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	80	0.28	N/A
ALL OTHER AGRIC,FOR,FISH, & RELATED WORKERS	80	0.28	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	7,520	26.27	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	40	0.14	N/A
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	300	1.05	N/A
ALL OTHER MACHINERY MAINTENANCE MECHANICS	40	0.14	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	130	0.45	42
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.03	N/A
MENDERS-GARMENTS, LINENS, AND RELATED	120	0.42	47
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	60	0.21	N/A
CUSTOM TAILORS AND SEWERS	130	0.45	49
SHOE & LEATHER WORKERS, REPAIRERS-PRECISION	120	0.42	39
SPOTTERS, DRY CLEANING	390	1.36	25
PRESSERS, DELICATE FABRICS	530	1.85	29
ALL OTHER PRECISION WORKERS	30	0.10	N/A
LAUNDRY,DRYCLEANING MACH OPER,TEND,EXC PRESS	1,910	6.67	29
PRESSING MACH OPER & TENDERS-TEXTILE, GARMENT	1,300	4.54	33
ALL OTHER MACHINE OPERATORS AND TENDERS	140	0.49	N/A
ALL OTHER HAND WORKERS	200	0.70	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	390	1.36	31
ALL OTHER MOTOR VEHICLE OPERATORS	440	1.54	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	830	2.90	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	410	1.43	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
LAUNDRY,CLEANING & GARMENT SERVICES
SIC = 721
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	10,860	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	430	3.96	N/A
FINANCIAL MANAGERS	240	2.21	31
GENERAL MANAGERS AND TOP EXECUTIVES	160	1.47	43
ALL OTHER MANAGERS AND ADMINISTRATORS	40	0.37	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	100	0.92	N/A
ACCOUNTANTS AND AUDITORS	80	0.74	44
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.09	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	20	0.18	N/A
SALES AND RELATED OCCUPATIONS	2,140	19.71	N/A
COUNTER AND RENTAL CLERKS	1,740	16.02	28
ALL OTHER SALES AND RELATED WORKERS	400	3.68	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	670	6.17	N/A
SECRETARIES	90	0.83	41
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	160	1.47	33
GENERAL OFFICE CLERKS	160	1.47	37
ALL OTHER OFFICE MACHINE OPERATORS	60	0.55	N/A
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	70	0.64	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	130	1.20	N/A
SERVICE OCCUPATIONS	660	6.08	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	320	2.95	30
ALL OTHER SERVICE WORKERS	340	3.13	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	6,860	63.17	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	40	0.37	N/A
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	300	2.76	N/A
MENDERS-GARMENTS, LINENS, AND RELATED	120	1.10	48
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	160	1.47	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	40	0.37	N/A
SPOTTERS, DRY CLEANING	390	3.59	25
PRESSERS, DELICATE FABRICS	520	4.79	29
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	90	0.83	N/A
LAUNDRY,DRYCLEANING MACH OPER,TEND,EXC PRESS	1,780	16.39	30
PRESSING MACH OPER & TENDERS-TEXTILE, GARMENT	1,280	11.79	34
ALL OTHER MACHINE OPERATORS AND TENDERS	140	1.29	N/A
PRESSERS, HAND	50	0.46	N/A
ALL OTHER HAND WORKERS	130	1.20	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	330	3.04	32
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	1,470	13.54	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
BEAUTY SHOPS
SIC = 723
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	9,870	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	160	1.62	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	330	3.34	N/A
ALL OTHER FINANCIAL SPECIALISTS	60	0.61	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	270	2.74	N/A
SALES AND RELATED OCCUPATIONS	90	0.91	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	630	6.38	N/A
RECEPTIONIST AND INFORMATION CLERKS	410	4.15	26
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	210	2.13	N/A
SERVICE OCCUPATIONS	8,660	87.74	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	40	0.41	N/A
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	60	0.61	N/A
HAIRDRESSERS, HAIRSTYLISTS, & COSMETOLOGISTS	7,870	79.74	6
SHAMPOOERS	330	3.34	33
ALL OTHER SERVICE WORKERS	370	3.75	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
FUNERAL SERVICE AND CREMATORIES
SIC = 726
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,410	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	100	7.09	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	710	50.35	N/A
ALL OTHER FINANCIAL SPECIALISTS	10	0.71	N/A
FUNERAL DIRECTORS AND MORTICIANS	480	34.04	17
EMBALMERS	220	15.60	40
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	300	21.28	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	60	4.26	50
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	240	17.02	N/A
SERVICE OCCUPATIONS	290	20.57	N/A
FUNERAL ATTENDANTS	250	17.73	39
ALL OTHER SERVICE WORKERS	50	3.55	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	10	0.71	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS PERSONAL SERVICES
SIC = 729
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	5,180	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	230	4.44	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	2,970	57.34	N/A
ALL OTHER FINANCIAL SPECIALISTS	1,080	20.85	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.19	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.19	N/A
ALL OTHER TEACHERS AND INSTRUCTORS	1,760	33.98	N/A
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	30	0.58	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	80	1.54	N/A
SALES AND RELATED OCCUPATIONS	320	6.18	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	710	13.71	N/A
ALL OTHER SECRETARIES	20	0.39	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	190	3.67	28
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	510	9.85	N/A
SERVICE OCCUPATIONS	450	8.69	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	160	3.09	N/A
ALL OTHER FOOD SERVICE WORKERS	20	0.39	N/A
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	30	0.58	N/A
ALL OTHER SERVICE WORKERS	250	4.83	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	490	9.46	N/A
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	30	0.58	N/A
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	40	0.77	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	150	2.90	N/A
ALL OTHER HAND WORKERS	10	0.19	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	100	1.93	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	100	1.93	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	70	1.35	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Business Services (SIC 73)

This industry includes establishments primarily engaged in rendering services to business establishments on a fee or contract basis. The firms in this industry can be divided into the following groups:

Advertising (SIC 731)
Consumer Credit Reporting Agencies (SIC 732)
Mailing, Reproduction, Commercial Art and Photography, and Stenographic Services (SIC 733)
Services to Dwellings and Other Buildings (SIC 734)
News Syndicates (SIC 735)
Personnel Supply Services (SIC 736)
Computer and Data Processing Services (SIC 737)
Miscellaneous Business Services (SIC 739)

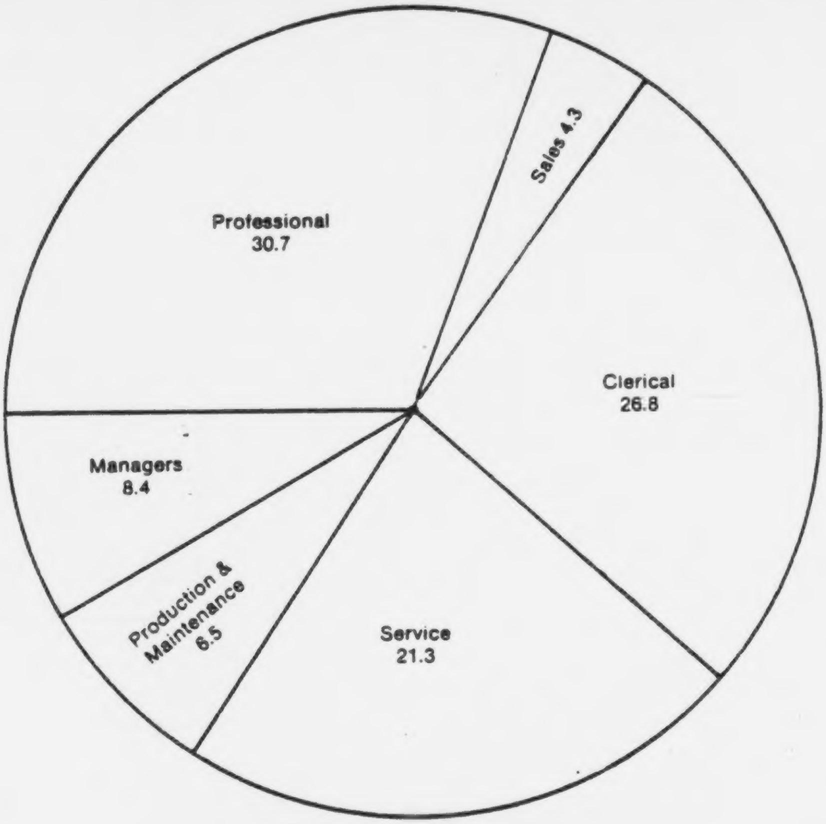
Over 33,000 jobs have been gained in the business service industry since 1981, a growth rate of 29.4 percent. This industry's tremendous growth is a result of changing technology and the contracting of outside specialists by many firms. Nearly 22 percent of the 1984 employment in the business services industry (146,050) is in the personnel supply industry area and 19 percent is in computer and data processing services.

A comparison of the publishable industries within business services indicates substantial occupational structural differences.

	SIC				
	73	731	732	737	739
Managerial and Administrative	8.4	20.2	4.8	10.1	12.0
Professional, Paraprofessional & Tech.	30.7	34.7	2.7	43.6	28.4
Sales and Related	4.2	10.9	8.2	6.9	5.4
Clerical and Administrative	26.8	29.0	84.3	36.4	22.4
Service	23.3	0.2	--	0.3	24.4
Agricultural and Related	0.1	--	--	--	0.1
Production, Construction & Maintenence	6.5	5.0	--	2.5	7.7

BUSINESS SERVICES (SIC 73)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	All Other Clerical & Administrative Support Workers	16,440
2.	Janitors, Cleaners, Except Maids, House Cleaners	16,330
3.	All Other Protective Service Workers	10,520
4.	All Other Health Professionals, Paraprofess., & Technicians	6,870
5.	All Other Office Machine Operators	6,310
6.	Computer Programmers	6,230
7.	All Other Mathematical Scientists	6,060
8.	All Other Secretaries	5,970
9.	All Other Engineers	5,650
10.	All Other Professionals, Paraprofess., and Technicians	5,260

These 10 occupational categories make up 58.3% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
BUSINESS SERVICES
SIC = 73
REFERENCE DATE JUNE, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	146,990	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	12,290	8.36	N/A
FINANCIAL MANAGERS	1,980	1.35	21
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	1,750	1.19	27
GENERAL MANAGERS AND TOP EXECUTIVES	5,020	3.42	23
ALL OTHER MANAGERS AND ADMINISTRATORS	3,540	2.41	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	45,070	30.66	N/A
ALL OTHER FINANCIAL SPECIALISTS	2,680	1.82	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	4,670	3.18	N/A
ALL OTHER ENGINEERS	5,650	3.84	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	4,840	3.29	N/A
ALL OTHER PHYSICAL SCIENTISTS	940	0.64	N/A
ALL OTHER LIFE SCIENTISTS	460	0.31	N/A
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	370	0.25	N/A
COMPUTER PROGRAMMERS	6,230	4.24	33
ALL OTHER MATHEMATICAL SCIENTISTS	6,060	4.12	N/A
ALL OTHER SOCIAL SCIENTISTS	710	0.48	N/A
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	120	0.08	N/A
ALL OTHER TEACHERS AND INSTRUCTORS	200	0.14	N/A
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	6,870	4.67	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	5,260	3.58	N/A
SALES AND RELATED OCCUPATIONS	6,250	4.25	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	1,530	1.04	30
SALES AGENTS, ADVERTISING	380	0.26	33
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	1,900	1.29	N/A
ALL OTHER SALES AND RELATED WORKERS	2,450	1.67	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	39,440	26.83	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	2,860	1.95	25
ALL OTHER SECRETARIES	5,970	4.06	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	2,540	1.73	31
ALL OTHER OFFICE MACHINE OPERATORS	6,310	4.29	N/A
ALL OTHER COMMUNICATIONS EQUIPMENT OPERATORS	3,380	2.30	N/A
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	1,940	1.32	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	16,440	11.18	N/A
SERVICE OCCUPATIONS	34,190	23.26	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	1,330	0.90	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	10,520	7.16	N/A
ALL OTHER FOOD SERVICE WORKERS	1,980	1.35	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	16,330	11.11	24
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	1,340	0.91	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
BUSINESS SERVICES
SIC = 73
REFERENCE DATE JUNE, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER SERVICE WORKERS	2,700	1.84	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	150	0.10	N/A
ALL OTHER AGRIC,FOR,FISH, & RELATED WORKERS	150	0.10	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	9,600	6.53	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	410	0.28	N/A
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	780	0.53	N/A
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	510	0.35	N/A
ALL OTHER ELEC & ELECTR EQUIP MECH,REP,INSTAL	680	0.46	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	100	0.07	N/A
ALL OTHER EXTRACTIVE WORKERS, EXCEPT HELPERS	240	0.16	N/A
ALL OTHER PRECISION METAL WORKERS	100	0.07	N/A
ALL OTHER PRECISION WORKERS	100	0.07	N/A
ALL OTHER PRINTING PRESS SETTERS, SET-UP OPER	20	0.01	N/A
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	420	0.29	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	270	0.18	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	1,140	0.78	N/A
ALL OTHER HAND WORKERS	470	0.32	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	930	0.63	N/A
ALL OTHER TRANSPORTATION AND RELATED WORKERS	10	0.01	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	110	0.07	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	1,290	0.88	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	2,040	1.39	N/A

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ADVERTISING
SIC = 731
REFERENCE DATE JUNE, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,210	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	850	20.19	N/A
FINANCIAL MANAGERS	140	3.33	31
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	480	11.40	26
GENERAL MANAGERS AND TOP EXECUTIVES	130	3.09	28
ALL OTHER MANAGERS AND ADMINISTRATORS	100	2.38	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	1,460	34.68	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	180	4.28	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.24	N/A
ECONOMISTS,INCLUDING MARKET RESEARCH ANALYSTS	10	0.24	N/A
WRITERS AND EDITORS	270	6.41	24
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	160	3.80	26
ARTISTS AND RELATED WORKERS	330	7.84	35
DESIGNERS, EXCEPT INTERIOR DESIGNERS	370	8.79	29
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	140	3.33	N/A
SALES AND RELATED OCCUPATIONS	460	10.93	N/A
SALES AGENTS, ADVERTISING	310	7.36	25
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	150	3.56	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,220	28.98	N/A
SECRETARIES	260	6.18	26
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	240	5.70	24
ALL OTHER OFFICE MACHINE OPERATORS	10	0.24	N/A
ALL OTHER COMMUNICATIONS EQUIPMENT OPERATORS	30	0.71	N/A
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	200	4.75	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	470	11.16	N/A
SERVICE OCCUPATIONS	10	0.24	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	210	4.99	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	50	1.19	N/A
ALL OTHER EXTRACTIVE WORKERS, EXCEPT HELPERS	40	0.95	N/A
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	20	0.48	N/A
ALL OTHER HAND WORKERS	80	1.90	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	20	0.48	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE

OCCUPATIONS OF EMPLOYEES

CREDIT REPORTING AND COLLECTION

SIC = 732

REFERENCE DATE JUNE, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,470	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	70	4.76	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	40	2.72	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.68	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.68	N/A
REGISTERED NURSES	10	0.68	N/A
LICENSED PRACTICAL NURSES	10	0.68	N/A
SALES AND RELATED OCCUPATIONS	120	8.16	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	100	6.80	N/A
ALL OTHER SALES AND RELATED WORKERS	20	1.36	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,240	84.35	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	80	5.44	44
INVESTIGATORS, CLERICAL	10	0.68	N/A
BILL AND ACCOUNT COLLECTORS	550	37.41	46
ALL OTHER SECRETARIES	40	2.72	N/A
TYPISTS	10	0.68	N/A
GENERAL OFFICE CLERKS	230	15.65	49
ALL OTHER OFFICE MACHINE OPERATORS	50	3.40	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	290	19.73	N/A

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
COMPUTER AND DATA PROCESSING SERVICES
SIC = 737
REFERENCE DATE JUNE, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	28,010	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	2,830	10.10	N/A
FINANCIAL MANAGERS	490	1.75	33
ALL OTHER MANAGERS AND ADMINISTRATORS	2,350	8.39	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	12,220	43.63	N/A
ALL OTHER FINANCIAL SPECIALISTS	410	1.46	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	470	1.68	N/A
ALL OTHER ENGINEERS	1,120	4.00	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	400	1.43	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	8,880	31.70	N/A
ALL OTHER SOCIAL SCIENTISTS	110	0.39	N/A
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	10	0.04	N/A
ALL OTHER TEACHERS AND INSTRUCTORS	110	0.39	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	710	2.53	N/A
SALES AND RELATED OCCUPATIONS	1,940	6.93	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	1,480	5.28	N/A
ALL OTHER SALES AND RELATED WORKERS	460	1.64	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	10,200	36.42	N/A
SECRETARIES	1,230	4.39	23
ALL OTHER OFFICE MACHINE OPERATORS	4,540	16.21	N/A
ALL OTHER COMMUNICATIONS EQUIPMENT OPERATORS	60	0.21	N/A
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	500	1.79	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	3,870	13.82	N/A
SERVICE OCCUPATIONS	90	0.32	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	20	0.07	N/A
ALL OTHER FOOD SERVICE WORKERS	10	0.04	N/A
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	60	0.21	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	710	2.53	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	40	0.14	N/A
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	40	0.14	N/A
ALL OTHER ELEC & ELECTR EQUIP MECH,REP,INSTAL	350	1.25	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.04	N/A
ALL OTHER PRECISION WORKERS	20	0.07	N/A
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	10	0.04	N/A
ALL OTHER HAND WORKERS	60	0.21	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	50	0.18	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	110	0.39	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	20	0.07	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS BUSINESS SERVICES
SIC = 739
REFERENCE DATE JUNE, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	56,330	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	6,760	12.00	N/A
FINANCIAL MANAGERS	920	1.63	35
GENERAL MANAGERS AND TOP EXECUTIVES	3,580	6.36	28
ALL OTHER MANAGERS AND ADMINISTRATORS	2,270	4.03	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	16,000	28.40	N/A
ALL OTHER FINANCIAL SPECIALISTS	2,210	3.92	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	2,340	4.15	N/A
ALL OTHER ENGINEERS	3,110	5.52	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	2,040	3.62	N/A
ALL OTHER PHYSICAL SCIENTISTS	940	1.67	N/A
ALL OTHER LIFE SCIENTISTS	460	0.82	N/A
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	370	0.66	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	3,140	5.57	N/A
ALL OTHER SOCIAL SCIENTISTS	590	1.05	N/A
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	110	0.20	N/A
ALL OTHER TEACHERS AND INSTRUCTORS	90	0.16	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	590	1.05	N/A
SALES AND RELATED OCCUPATIONS	3,040	5.40	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	1,240	2.20	N/A
ALL OTHER SALES AND RELATED WORKERS	1,800	3.20	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	12,400	22.01	N/A
ALL OTHER SECRETARIES	2,370	4.21	N/A
ALL OTHER OFFICE MACHINE OPERATORS	530	0.94	N/A
ALL OTHER COMMUNICATIONS EQUIPMENT OPERATORS	3,130	5.56	N/A
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	520	0.92	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	5,850	10.39	N/A
SERVICE OCCUPATIONS	13,770	24.45	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	250	0.44	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	10,460	18.57	N/A
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	1,340	2.38	N/A
ALL OTHER SERVICE WORKERS	1,730	3.07	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	30	0.05	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	4,330	7.69	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	240	0.43	N/A
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	720	1.28	N/A
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	140	0.25	N/A
ALL OTHER ELEC & ELECTR EQUIP MECH,REP,INSTAL	330	0.59	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	100	0.18	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	50	0.09	N/A

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS BUSINESS SERVICES
SIC = 739
REFERENCE DATE JUNE, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER PRECISION WORKERS	110	0.20	N/A
ALL OTHER PRINT,BIND & REL MACH OPER & TENDER	260	0.46	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	1,030	1.83	N/A
ALL OTHER HAND WORKERS	70	0.12	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	800	1.42	N/A
ALL OTHER TRANSPORTATION AND RELATED WORKERS	100	0.18	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	100	0.18	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	290	0.51	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Automotive Repair, Services, and Garages (SIC 75)

This industry includes establishments primarily engaged in furnishing automotive related services to the general public. The firms in this industry can be divided into the following groups:

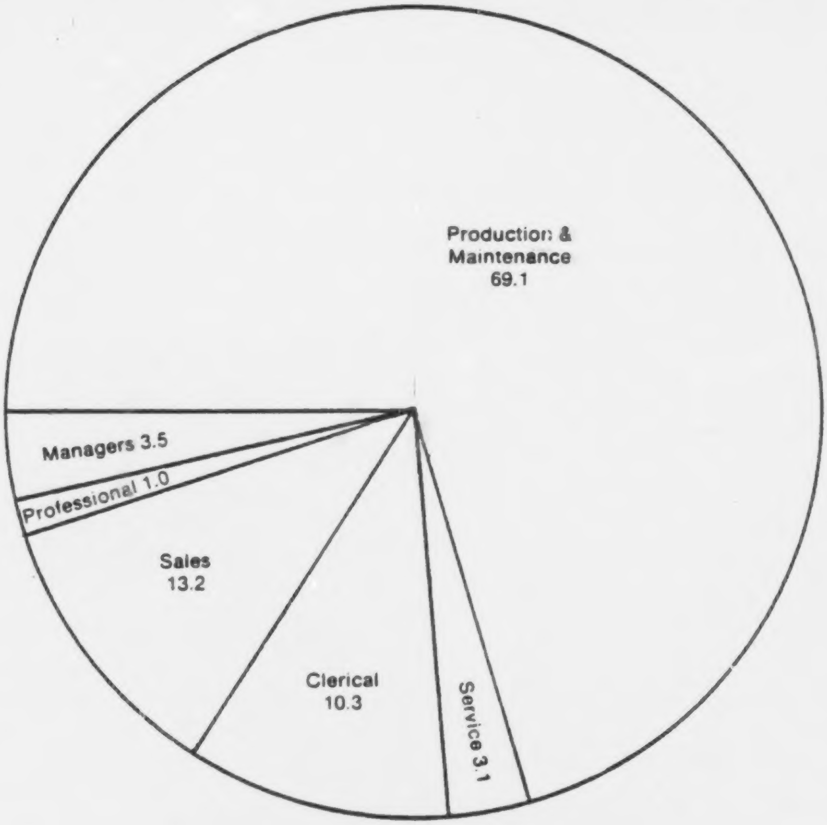
Automotive Rental and Leasing (SIC 751)
Automobile Parking (SIC 752)
Automotive Repair Shops (SIC 753)
Automotive Services, except Repair (SIC 754)

Employment has increased steadily in this industry since 1981 exhibiting a 22.8 percent growth rate reaching its 1984 level at 18,950. The bulk of this industry's employment, a 61.2 percentage share, is in automotive repair shops. Employment gains can be attributed to consumer demand for leasing of automobiles and their need to increase the longevity of vehicles.

The occupational structure of this industry is largely concentrated within the production, construction and maintenance occupations. This occupational group has increased its share by 8.5 percentage points since the last survey conducted in 1981.

AUTO REPAIR, SERVICES, AND GARAGES (SIC 75)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Automotive Body and Related Repairers	3,510
2.	Automotive Mechanics	3,040
3.	All Other Sales and Related Workers	1,300
4.	All Other Material Moving Equipment Operators	1,290
5.	All Other Motor Vehicle Operators	1,120
6.	Vehicle Washers and Equipment Cleaners	1,060
7.	Supervisors - Mechanics, Installers, Repairers	990
8.	All Other Communications Equip., Mechanics, Rep., Instal.	910
9.	First Line Supervisors & Managers/Supervisors - Sales	770
10.	Bookkeeping, Accounting and Auditing Clerks	610

These 10 occupational categories make up 77.7% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
AUTO REPAIR, SERVICES, AND GARAGES
SIC = 75
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	18,790	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	660	3.51	N/A
FINANCIAL MANAGERS	430	2.29	24
ALL OTHER MANAGERS AND ADMINISTRATORS	230	1.22	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	180	0.96	N/A
ALL OTHER FINANCIAL SPECIALISTS	40	0.21	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	90	0.48	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	0.11	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	30	0.16	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	**	0.00	N/A
SALES AND RELATED OCCUPATIONS	2,480	13.20	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	770	4.10	18
SALESPERSONS, PARTS	410	2.18	27
ALL OTHER SALES AND RELATED WORKERS	1,300	6.92	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,930	10.27	N/A
SECRETARIES	530	2.82	25
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	610	3.25	17
GENERAL OFFICE CLERKS	470	2.50	23
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	20	0.11	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	300	1.60	N/A
SERVICE OCCUPATIONS	580	3.09	N/A
ALL OTHER SERVICE WORKERS	580	3.09	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	12,980	69.08	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	990	5.27	16
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	50	0.27	N/A
AUTOMOTIVE MECHANICS	3,040	16.18	16
AUTOMOTIVE BODY AND RELATED REPAIRERS	3,510	18.68	16
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	910	4.84	N/A
ALL OTHER ELEC & ELECTR EQUIP MECH,REP,INSTAL	100	0.53	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	440	2.34	N/A
ALL OTHER EXTRACTIVE WORKERS, EXCEPT HELPERS	**	0.00	N/A
ALL OTHER PRECISION METAL WORKERS	80	0.43	N/A
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	50	0.27	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	100	0.53	N/A
ALL OTHER HAND WORKERS	80	0.43	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	1,120	5.96	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	1,290	6.87	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	60	0.32	N/A
VEHICLE WASHERS AND EQUIPMENT CLEANERS	1,060	5.64	21
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	100	0.53	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
AUTOMOTIVE RENTALS, WITHOUT DRIVERS
SIC = 751
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	3,940	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	200	5.08	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	70	1.78	N/A
ALL OTHER FINANCIAL SPECIALISTS	30	0.76	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.25	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	30	0.76	N/A
SALES AND RELATED OCCUPATIONS	1,070	27.16	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	350	8.88	N/A
COUNTER AND RENTAL CLERKS	510	12.94	39
ALL OTHER SALES AND RELATED WORKERS	210	5.33	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	650	16.50	N/A
SECRETARIES	140	3.55	39
RECEPTIONIST AND INFORMATION CLERKS	80	2.03	48
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	120	3.05	49
GENERAL OFFICE CLERKS	210	5.33	35
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	100	2.54	N/A
SERVICE OCCUPATIONS	160	4.06	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	110	2.79	N/A
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	50	1.27	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	110	2.79	N/A
AUTOMOTIVE MECHANICS	130	3.30	36
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	310	7.87	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	50	1.27	N/A
ALL OTHER HAND WORKERS	10	0.25	N/A
PARKING LOT ATTENDANTS	140	3.55	44
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	120	3.05	N/A
VEHICLE WASHERS AND EQUIPMENT CLEANERS	330	8.38	37
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	140	3.55	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
AUTOMOTIVE REPAIR SHOPS
SIC = 753
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	11,530	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	300	2.60	N/A
FINANCIAL MANAGERS	250	2.17	34
ALL OTHER MANAGERS AND ADMINISTRATORS	50	0.43	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	60	0.52	N/A
ALL OTHER FINANCIAL SPECIALISTS	**	0.00	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	50	0.43	N/A
SALES AND RELATED OCCUPATIONS	730	6.33	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	320	2.78	27
SALESPERSONS, PARTS	280	2.43	32
ALL OTHER SALES AND RELATED WORKERS	130	1.13	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,130	9.80	N/A
SECRETARIES	370	3.21	31
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	430	3.73	20
GENERAL OFFICE CLERKS	230	1.99	33
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	100	0.87	N/A
SERVICE OCCUPATIONS	70	0.61	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	9,250	80.23	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	840	7.29	17
AUTOMOTIVE MECHANICS	2,900	25.15	17
AUTOMOTIVE BODY AND RELATED REPAIRERS	3,490	30.27	16
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	610	5.29	N/A
ALL OTHER ELEC & ELECTR EQUIP MECH,REP,INSTAL	100	0.87	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	390	3.38	N/A
ALL OTHER PRECISION METAL WORKERS	80	0.69	N/A
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	50	0.43	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	100	0.87	N/A
ALL OTHER HAND WORKERS	70	0.61	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	390	3.38	N/A
ALL OTHER TRANSPORTATION AND RELATED WORKERS	200	1.73	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	30	0.26	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	10	0.09	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# AUTOMOTIVE SERVICES, EXCEPT REPAIR
SIC = 754
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT NUMBER[1]	EMPLOYMENT PERCENT OF TOTAL	EMPLOYMENT RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,480	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	70	4.73	N/A
FINANCIAL MANAGERS	60	4.05	47
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.68	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	50	3.38	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	40	2.70	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	1.35	N/A
SALES AND RELATED OCCUPATIONS	180	12.16	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	40	2.70	N/A
CASHIERS	140	9.46	37
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	100	6.76	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	30	2.03	50
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	70	4.73	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,090	73.65	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	70	4.73	N/A
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	40	2.70	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	140	9.46	83
ALL OTHER MOTOR VEHICLE OPERATORS	80	5.41	N/A
ALL OTHER TRANSPORTATION AND RELATED WORKERS	40	2.70	N/A
VEHICLE WASHERS AND EQUIPMENT CLEANERS	730	49.32	25

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Miscellaneous Repair Service (SIC 76)

This industry includes establishments engaged in miscellaneous repair services. The firms in this industry can be divided into the following groups:

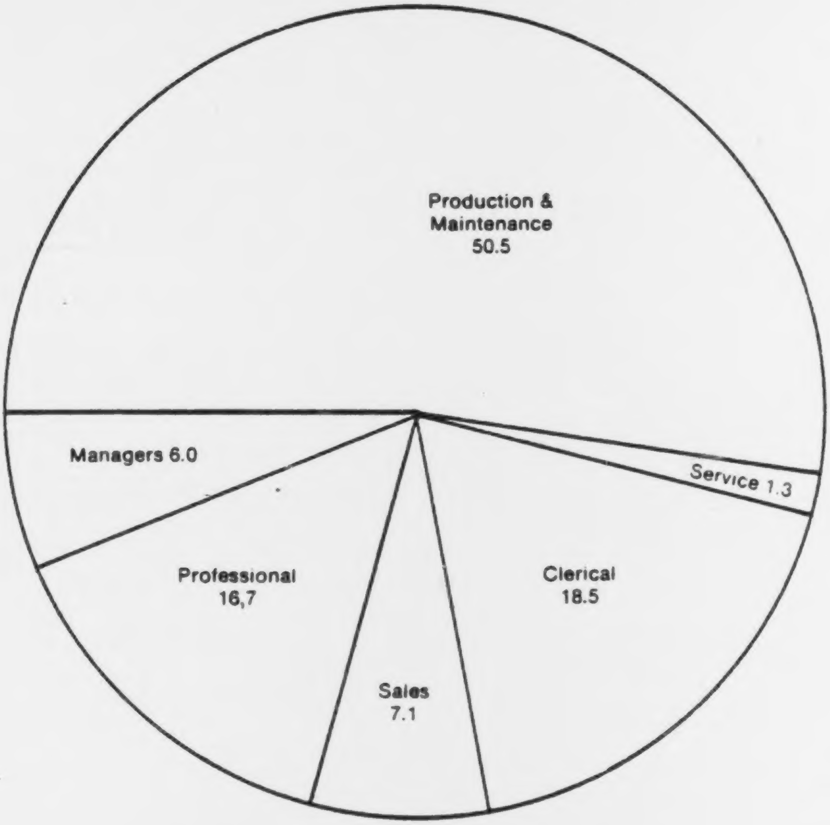
Electrical Repair Shops (SIC 762)
Watch, Clock, and Jewelry Repair (SIC 763)
Reupholstery and Furniture Repair (SIC 764)
Miscellaneous Repair Shops and Related Services (SIC 769)

The 1984 employment level of the miscellaneous repair service industry reached 7,500 workers, a growth of nearly 200 workers or 2.5 percent since 1981. Most of the industry is concentrated in electrical repair shops, 44.1 percent.

One out of every two workers in this industry is in the production, construction, and maintenance occupational category. The 1984 occupational structure of the industry is fairly consistent with those found in the 1981 survey.

MISCELLANEOUS REPAIR SERVICES (SIC 76)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	All Other Engineers	790
2.	All Other Mechanics, Installers and Repairers	460
3.	Welder and Cutters	380
4.	Salespersons, Retail	270
5.	Bookkeeping, Accounting, and Auditing Clerks	270
6.	All Other Electric & Electronic Equip. Mechanics,Rep., & Instal	270
7.	General Office Clerks	260
8.	Electric Motor, Transformer & Related Repairers	260
9.	Supervisors - Mechanics, Installers, Repairers	240
10.	Secretaries	230

These 10 occupational categories make up 45.9% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS REPAIR SERVICES
SIC = 76
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	7,480	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	450	6.02	N/A
FINANCIAL MANAGERS	140	1.87	17
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.13	45
PURCHASING MANAGERS	10	0.13	50
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	20	0.27	49
ADMINISTRATIVE SERVICES MANAGERS	10	0.13	50
GENERAL MANAGERS AND TOP EXECUTIVES	30	0.40	37
ALL OTHER MANAGERS AND ADMINISTRATORS	230	3.07	46
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	1,250	16.71	N/A
ACCOUNTANTS AND AUDITORS	50	0.67	33
ALL OTHER FINANCIAL SPECIALISTS	10	0.13	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	50	0.67	25
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	20	0.27	47
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.13	N/A
ALL OTHER ENGINEERS	790	10.56	N/A
ENGINEERING & RELATED TECHNICIANS & TECHNOL.	150	2.01	40
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	20	0.27	49
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.13	N/A
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	10	0.13	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	130	1.74	N/A
SALES AND RELATED OCCUPATIONS	530	7.09	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	170	2.27	19
SALESPERSONS, RETAIL	270	3.61	25
ALL OTHER SALES AND RELATED WORKERS	80	1.07	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,380	18.45	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	70	0.94	44
SECRETARIES	230	3.07	12
TYPISTS	120	1.60	24
TYPISTS, WORD PROCESSING EQUIPMENT	30	0.40	44
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.13	35
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	20	0.27	45
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	270	3.61	16
PAYROLL AND TIMEKEEPING CLERKS	20	0.27	45
GENERAL OFFICE CLERKS	260	3.48	35
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.13	38
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.27	47
SWITCHBOARD OPERATORS	10	0.13	22
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	70	0.94	45
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	20	0.27	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS REPAIR SERVICES
SIC = 76
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	230	3.07	N/A
SERVICE OCCUPATIONS	100	1.34	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.13	17
ALL OTHER PROTECTIVE SERVICE WORKERS	10	0.13	N/A
FOOD & BEVERAGE PREPARATION & SERVICE OCCUP.	20	0.27	46
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	50	0.67	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,780	50.53	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	240	3.21	31
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.13	N/A
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	20	0.27	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	220	2.94	40
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	130	1.74	N/A
ELECTRIC MOTOR,TRANSFORMER & RELATED REPAIRER	260	3.48	29
ALL OTHER ELEC & ELECTR EQUIP MECH,REP,INSTAL	270	3.61	N/A
LOCKSMITHS AND SAFE REPAIRERS	190	2.54	32
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	460	6.15	N/A
ELECTRICIANS	20	0.27	47
SEPTIC TANK SERVICERS & SEWER PIPE CLEANERS	160	2.14	45
ALL OTHER CONSTRUCTION TRADES WORKERS	20	0.27	N/A
ALL OTHER EXTRACTIVE WORKERS, EXCEPT HELPERS	30	0.40	N/A
MACHINISTS	120	1.60	32
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	170	2.27	31
JEWELERS AND SILVERSMITHS	70	0.94	35
BOILERMAKERS	110	1.47	48
ALL OTHER PRECISION METAL WORKERS	40	0.53	N/A
FURNITURE FINISHERS	140	1.87	49
ALL OTHER PRECISION WOODWORKERS	40	0.53	N/A
UPHOLSTERERS	230	3.07	22
SEWING MACHINE OPERATORS, NON-GARMENT	90	1.20	23
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	10	0.13	N/A
WELDERS AND CUTTERS	380	5.08	23
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	140	1.87	20
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	60	0.80	26
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	150	2.01	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ELECTRICAL REPAIR SHOPS
SIC = 762
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	3,290	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	320	9.73	N/A
FINANCIAL MANAGERS	30	0.91	41
ALL OTHER MANAGERS AND ADMINISTRATORS	290	8.81	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	1,110	33.74	N/A
ACCOUNTANTS AND AUDITORS	30	0.91	43
ALL OTHER FINANCIAL SPECIALISTS	10	0.30	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	20	0.61	43
ALL OTHER ENGINEERS	780	23.71	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	90	2.74	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	30	0.91	N/A
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	10	0.30	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	140	4.26	N/A
SALES AND RELATED OCCUPATIONS	110	3.34	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	760	23.10	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	70	2.13	46
SECRETARIES	110	3.34	18
TYPISTS	110	3.34	25
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.30	35
ALL OTHER OFFICE MACHINE OPERATORS	30	0.91	N/A
SWITCHBOARD OPERATORS	10	0.30	29
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	440	13.37	N/A
SERVICE OCCUPATIONS	60	1.82	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.30	45
ALL OTHER PROTECTIVE SERVICE WORKERS	10	0.30	N/A
FOOD & BEVERAGE PREPARATION & SERVICE OCCUP.	20	0.61	46
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	20	0.61	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	950	28.88	N/A
ALL OTHER MACHINERY MAINTENANCE MECHANICS	170	5.17	N/A
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	120	3.65	N/A
ALL OTHER ELEC & ELECTR EQUIP MECH,REP,INSTAL	290	8.81	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	240	7.29	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.30	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	80	2.43	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	30	0.91	24

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS REPAIR SHOPS
SIC = 769
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	3,260	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	110	3.37	N/A
FINANCIAL MANAGERS	80	2.45	22
ALL OTHER MANAGERS AND ADMINISTRATORS	30	0.92	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	130	3.99	N/A
ALL OTHER FINANCIAL SPECIALISTS	20	0.61	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	20	0.61	30
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.61	N/A
ENGINEERS	20	0.61	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	60	1.84	N/A
PHYSICAL SCIENTISTS	10	0.31	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	**	0.00	N/A
SALES AND RELATED OCCUPATIONS	310	9.51	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	130	3.99	18
ALL OTHER SALES AND RELATED WORKERS	180	5.52	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	520	15.95	N/A
SECRETARIES	110	3.37	18
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	170	5.21	12
GENERAL OFFICE CLERKS	140	4.29	20
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	50	1.53	N/A
ALL OTHER OFFICE MACHINE OPERATORS	10	0.31	N/A
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	30	0.92	34
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.31	N/A
SERVICE OCCUPATIONS	40	1.23	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.31	N/A
ALL OTHER SERVICE WORKERS	30	0.92	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,140	65.64	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	140	4.29	23
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.31	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	20	0.61	N/A
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	240	7.36	N/A
DATA PROCESSING EQUIPMENT REPAIRERS	10	0.31	N/A
ELECTRIC MOTOR,TRANSFORMER & RELATED REPAIRER	240	7.36	28
LOCKSMITHS AND SAFE REPAIRERS	190	5.83	32
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	130	3.99	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	210	6.44	N/A
MACHINISTS	120	3.68	32
PRECISION TOOL GRINDERS, FILERS, SHARPENERS	170	5.21	31
ALL OTHER PRECISION METAL WORKERS	110	3.37	N/A
COATING,PAINTING,SPRAYING MACH SETTERS,SET-UP	10	0.31	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS REPAIR SHOPS
SIC = 769
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
WELDERS AND CUTTERS	380	11.66	23
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	80	2.45	25
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	90	2.76	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Motion Pictures (SIC 78)

This industry group includes establishments producing and distributing motion pictures, exhibiting motion pictures in commercially operated theaters and furnishing services to the motion picture industry. The term "motion pictures" includes similar productions for television or other media using film, tape or other means. The firms in this industry can be divided into the following groups:

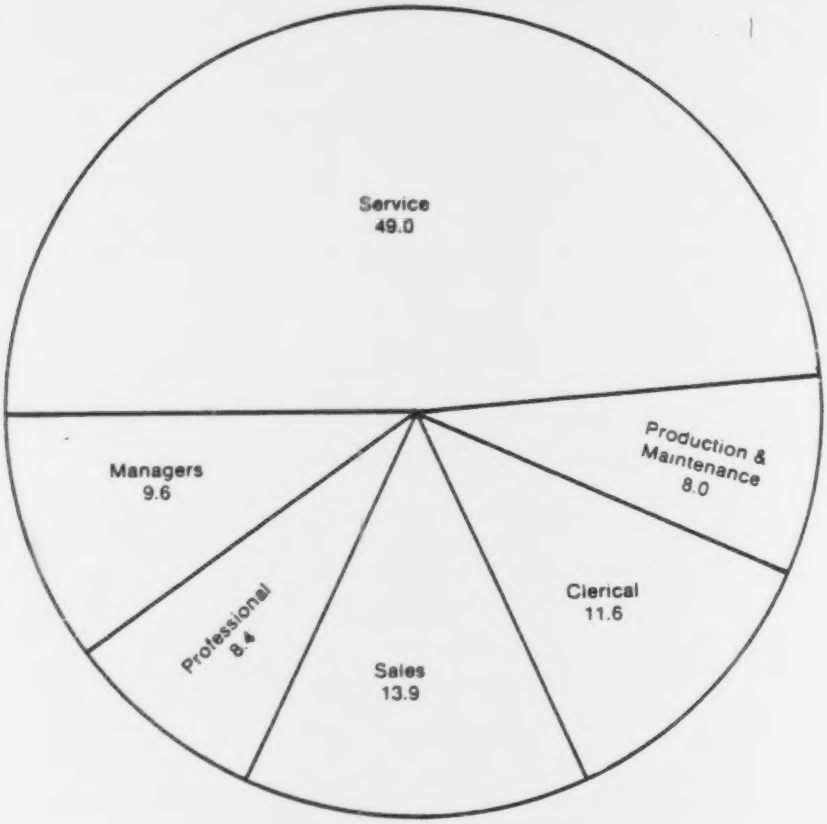
Motion Picture Production and Allied Services (SIC 781)
Motion Picture Distribution and Allied Services (SIC 782)
Motion Picture Theaters (SIC 783)

Employment in the motion picture industry has been on a downward trend since the mid-seventies. Since 1981,this industry has dropped 1.8 percent, a loss of 75 jobs. The bulk of the employment in this industry is concentrated in the motion picture theater industrial group. However, it has lost a significant share between 1981 to 1984, a 92.4 percentage share versus a 77.3 percentage share.The motion picture theater industry has undergone significant physical changes over the last decade. The theater itself has gone from one screen location to a multi-screen location; this has allowed more movies to be shown simultaneously.

The occupational structure of the motion picture industry is predominately comprised of service workers, 49 percent. More than one out of every three workers in this industry are ushers, lobby attendants, and/or ticket takers.

MOTION PICTURES (SIC 78)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Ushers, Lobby Attendants, and Ticket Takers	1,590
2.	Cashiers	540
3.	Janitors, Cleaners, Except Maids, House Cleaners	290
4.	Counter Attendants - Lunchroom, Coffee Shop etc.	270
5.	All Other Clerical & Administrative Support Workers	230
6.	Motion Picture Projectionists	220
7.	All Other Managers and Administrators	170
8.	Secretaries	140
9.	Administrative Service Managers	130
10.	All Other Professional, Paraprofessional and Technical	130

These 10 occupational categories make up 79.4% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
MOTION PICTURES
SIC = 78
REFERENCE DATE JUNE, 1984

OCCUPATIONAL TITLE	EMPLOYMENT NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,670	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	450	9.64	N/A
FINANCIAL MANAGERS	40	0.86	31
ADMINISTRATIVE SERVICES MANAGERS	130	2.78	44
GENERAL MANAGERS AND TOP EXECUTIVES	100	2.14	23
ALL OTHER MANAGERS AND ADMINISTRATORS	170	3.64	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	390	8.35	N/A
ACCOUNTANTS AND AUDITORS	40	0.86	42
ALL OTHER MANAGEMENT SUPPORT WORKERS	40	0.86	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	30	0.64	N/A
CAMERA OPERATORS, TELEVISION & MOTION PICTURE	30	0.64	45
FILM EDITORS	40	0.86	42
PRODUCERS,DIRECTORS,ACTORS,OTHER ENTERTAINERS	80	1.71	26
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	130	2.78	N/A
SALES AND RELATED OCCUPATIONS	650	13.92	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	50	1.07	43
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	50	1.07	28
CASHIERS	540	11.56	38
ALL OTHER SALES AND RELATED WORKERS	10	0.21	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	540	11.56	N/A
SECRETARIES	140	3.00	49
RECEPTIONIST AND INFORMATION CLERKS	10	0.21	50
GENERAL OFFICE CLERKS	90	1.93	44
BILLING, POSTING, CALCULATING MACH. OPERATORS	10	0.21	38
ALL OTHER OFFICE MACHINE OPERATORS	30	0.64	N/A
SWITCHBOARD OPERATORS	10	0.21	50
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	20	0.43	48
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.21	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	230	4.93	N/A
SERVICE OCCUPATIONS	2,290	49.04	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	10	0.21	N/A
COUNTER ATTENDANTS-LUNCHROOM,COFFEE SHOP, ETC	270	5.78	50
ALL OTHER FOOD SERVICE WORKERS	20	0.43	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	290	6.21	37
USHERS, LOBBY ATTENDANTS, AND TICKET TAKERS	1,590	34.05	23
ALL OTHER SERVICE WORKERS	30	0.64	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	370	7.92	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.21	N/A
ALL OTHER PRECISION WORKERS	60	1.28	N/A
MOTION PICTURE PROJECTIONISTS	220	4.71	27

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MOTION PICTURES
SIC = 78
REFERENCE DATE JUNE, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER MACHINE OPERATORS AND TENDERS	70	1.50	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.21	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MOTION PICTURE THEATERS
SIC = 783
REFERENCE DATE JUNE, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	3,760	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	260	6.91	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	80	2.13	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	50	1.33	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	30	0.80	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	10	0.27	N/A
SALES AND RELATED OCCUPATIONS	530	14.10	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	350	9.31	N/A
ALL OTHER SECRETARIES	80	2.13	N/A
ALL OTHER OFFICE MACHINE OPERATORS	30	0.80	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	250	6.65	N/A
SERVICE OCCUPATIONS	2,280	60.64	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	70	1.86	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	10	0.27	N/A
ALL OTHER FOOD SERVICE WORKERS	290	7.71	N/A
USHERS, LOBBY ATTENDANTS, AND TICKET TAKERS	1,590	42.29	23
ALL OTHER SERVICE WORKERS	320	8.51	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	260	6.91	N/A
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	30	0.80	N/A
MOTION PICTURE PROJECTIONISTS	220	5.85	27

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Amusement and Recreation Services (SIC 79)

This industry includes establishments engaged in providing amusement or entertainment on payment of a fee or admission charge. The firms in this industry can be divided into the following groups:

Dance Halls, Studios, and Schools (SIC 791)

Theatrical Producers, Bands, Orchestras, and Entertainers (SIC 792)

Bowling Alleys and Billiard and Pool Establishments (SIC 793)

Commercial Sports (SIC 794)

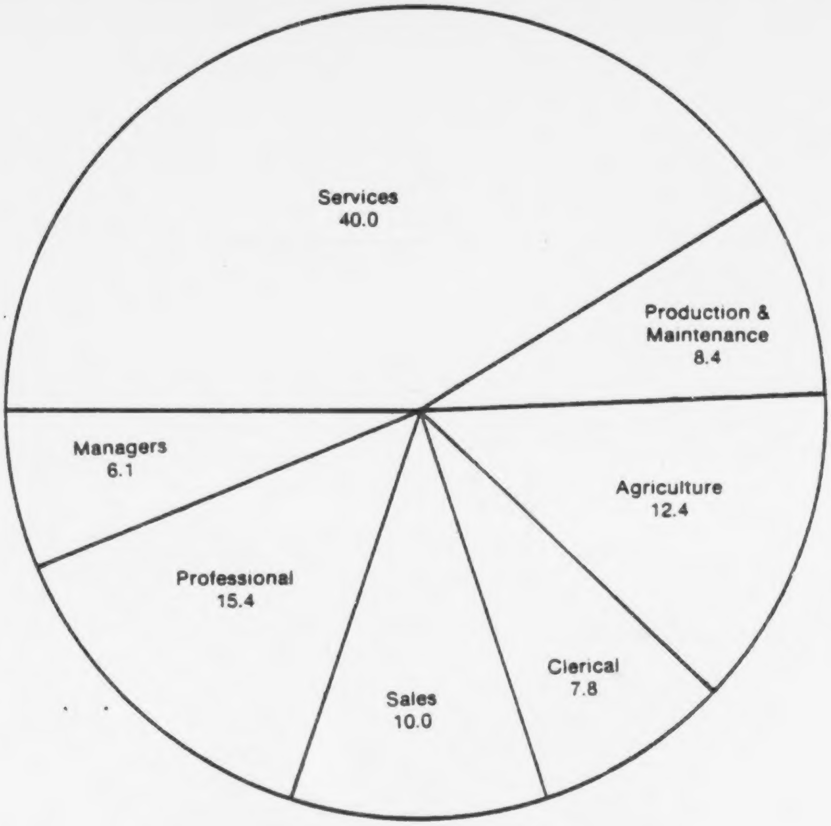
Miscellaneous Amusement and Recreation Services (SIC 799)

Employment in the amusement and recreation service industry has grown 10.4 percent since 1981, an increase of approximately 1,700 jobs. This industry tends to be seasonal in nature because of its dependency on weather conditions. However, there has been an increase of establishments offering a wide variety of year-round, indoor amusement and recreation services.

Two out of very five workers in this industry are in the service occupational category.

AMUSEMENT AND RECREATIONAL SERVICES (SIC 79)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Amusement and Recreation Attendants	1,690
2.	Gardeners and Groundskeepers, Except Farm	1,680
3.	Cashiers	1,600
4.	Waiters and Waitresses	1,270
5.	All Other Food Service Workers	1,130
6.	All Other Professional, Paraprofessional, and Technical	1,120
7.	Bartenders	890
8.	All Other Teachers and Instructors	700
9.	Maintenance Repairers, General Utility	550
10.	Janitors, Cleaners, Except Maids, Home Cleaners	470

These 10 occupational categories make up 66.5% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
AMUSEMENT & RECREATIONAL SERVICES
SIC = 79
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	16,680	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,020	6.12	N/A
FINANCIAL MANAGERS	430	2.58	19
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	210	1.26	31
FOOD SERVICE AND LODGING MANAGERS	130	0.78	31
GENERAL MANAGERS AND TOP EXECUTIVES	150	0.90	34
ALL OTHER MANAGERS AND ADMINISTRATORS	110	0.66	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	2,560	15.35	N/A
ACCOUNTANTS AND AUDITORS	100	0.60	29
ALL OTHER FINANCIAL SPECIALISTS	10	0.06	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	40	0.24	N/A
ELECTRICAL AND ELECTRONIC ENGINEERS	10	0.06	24
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.06	N/A
ALL OTHER SOCIAL SCIENTISTS	130	0.78	N/A
ALL OTHER TEACHERS AND INSTRUCTORS	700	4.20	N/A
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	20	0.12	N/A
MUSICIANS, INSTRUMENTAL	440	2.64	26
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	1,120	6.71	N/A
SALES AND RELATED OCCUPATIONS	1,660	9.95	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	10	0.06	N/A
CASHIERS	1,600	9.59	24
NEWS-STREET VENDOR,PHONE SOLICIT,DOOR TO DOOR	10	0.06	31
ALL OTHER SALES AND RELATED WORKERS	40	0.24	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,300	7.79	N/A
SECRETARIES	310	1.86	29
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	370	2.22	20
GENERAL OFFICE CLERKS	170	1.02	31
ALL OTHER OFFICE MACHINE OPERATORS	10	0.06	N/A
SWITCHBOARD OPERATORS	20	0.12	17
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.06	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	410	2.46	N/A
SERVICE OCCUPATIONS	6,670	39.99	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	130	0.78	N/A
DETECTIVES AND INVESTIGATORS, EXCEPT PUBLIC	10	0.06	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	200	1.20	N/A
BARTENDERS	890	5.34	19
WAITERS AND WAITRESSES	1,270	7.61	31
COOKS, RESTAURANT	270	1.62	32
ALL OTHER FOOD SERVICE WORKERS	1,130	6.77	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	470	2.82	24

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
AMUSEMENT & RECREATIONAL SERVICES
SIC = 79
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	180	1.08	N/A
AMUSEMENT AND RECREATION ATTENDANTS	1,690	10.13	29
GUIDES	10	0.06	N/A
USHERS, LOBBY ATTENDANTS, AND TICKET TAKERS	240	1.44	35
ALL OTHER SERVICE WORKERS	190	1.14	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	2,070	12.41	N/A
GARDENERS AND GROUNDSKEEPERS, EXCEPT FARM	1,680	10.07	20
ANIMAL CARETAKERS, EXCEPT FARM	380	2.28	42
ALL OTHER AGRIC,FOR,FISH, & RELATED WORKERS	10	0.06	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,400	8.39	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	50	0.30	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	550	3.30	26
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	280	1.68	N/A
ALL OTHER EXTRACTIVE WORKERS, EXCEPT HELPERS	120	0.72	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	100	0.60	N/A
SEWERS, HAND	10	0.06	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	30	0.18	N/A
ALL OTHER TRANSPORTATION AND RELATED WORKERS	120	0.72	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	10	0.06	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	10	0.06	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	40	0.24	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	80	0.48	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PRODUCERS,ORCHESTRAS,ENTERTAINERS
SIC = 792
REFERENCE DATE APRIL,1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,820	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	140	7.69	N/A
FINANCIAL MANAGERS	30	1.65	40
ADMINISTRATIVE SERVICES MANAGERS	10	0.55	26
GENERAL MANAGERS AND TOP EXECUTIVES	10	0.55	13
ALL OTHER MANAGERS AND ADMINISTRATORS	90	4.95	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	1,040	57.14	N/A
ALL OTHER FINANCIAL SPECIALISTS	30	1.65	N/A
ANNOUNCERS, RADIO AND TELEVISION	10	0.55	45
MUSIC DIRECTORS,SINGERS,COMPOSERS,RELATED WKR	170	9.34	45
MUSICIANS, INSTRUMENTAL	440	24.18	26
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	400	21.98	N/A
SALES AND RELATED OCCUPATIONS	20	1.10	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	150	8.24	N/A
SECRETARIES	80	4.40	38
GENERAL OFFICE CLERKS	30	1.65	24
SWITCHBOARD OPERATORS	10	0.55	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	30	1.65	N/A
SERVICE OCCUPATIONS	220	12.09	N/A
HOUSEKEEPERS	10	0.55	43
GUARDS AND WATCH GUARDS	30	1.65	43
BARTENDERS	20	1.10	N/A
WAITERS AND WAITRESSES	50	2.75	N/A
DINING ROOM, CAFETERIA ATTENDANTS,BAR HELPERS	10	0.55	N/A
FOOD PREPARATION WORKERS	20	1.10	N/A
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.55	N/A
GUIDES	10	0.55	N/A
USHERS, LOBBY ATTENDANTS, AND TICKET TAKERS	70	3.85	27
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	20	1.10	N/A
GARDENERS AND GROUNDSKEEPERS, EXCEPT FARM	20	1.10	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	210	11.54	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	40	2.20	N/A
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	10	0.55	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	80	4.40	N/A
ALL OTHER PREC. TEXTILE, APPAREL, FURNISHINGS	**	0.00	N/A
SEWERS, HAND	10	0.55	N/A
DRIVER/SALES WORKERS	10	0.55	42
PARKING LOT ATTENDANTS	10	0.55	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	50	2.75	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
BOWLING AND BILLIARD ESTABLISHMENTS
SIC = 793
REFERENCE DATE APRIL,1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,580	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	100	6.33	N/A
FINANCIAL MANAGERS	70	4.43	34
ALL OTHER MANAGERS AND ADMINISTRATORS	30	1.90	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	10	0.63	N/A
INSTRUCTORS & COACHES,SPORTS & PHYSICAL TRNG	10	0.63	N/A
SALES AND RELATED OCCUPATIONS	220	13.92	N/A
CASHIERS	220	13.92	45
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	100	6.33	N/A
SERVICE OCCUPATIONS	1,010	63.92	N/A
ALL OTHER FOOD SERVICE WORKERS	340	21.52	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	70	4.43	47
AMUSEMENT AND RECREATION ATTENDANTS	580	36.71	29
ALL OTHER SERVICE WORKERS	20	1.27	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	150	9.49	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	150	9.49	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
COMMERCIAL SPORTS
SIC = 794
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,320	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	110	4.74	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	330	14.22	N/A
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	20	0.86	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	300	12.93	N/A
SALES AND RELATED OCCUPATIONS	760	32.76	N/A
CASHIERS	740	31.90	N/A
NEWS-STREET VENDOR,PHONE SOLICIT,DOOR TO DOOR	10	0.43	N/A
ALL OTHER SALES AND RELATED WORKERS	10	0.43	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	130	5.60	N/A
ALL OTHER SECRETARIES	50	2.16	N/A
ALL OTHER OFFICE MACHINE OPERATORS	10	0.43	N/A
SWITCHBOARD OPERATORS	10	0.43	29
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	60	2.59	N/A
SERVICE OCCUPATIONS	420	18.10	N/A
DETECTIVES AND INVESTIGATORS, EXCEPT PUBLIC	10	0.43	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	60	2.59	N/A
ALL OTHER SERVICE WORKERS	270	11.64	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	250	10.78	N/A
GARDENERS AND GROUNDSKEEPERS, EXCEPT FARM	10	0.43	50
ALL OTHER AGRIC,FOR,FISH, & RELATED WORKERS	240	10.34	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	340	14.66	N/A
CARPENTERS	20	0.86	44
ALL OTHER CONSTRUCTION TRADES WORKERS	140	6.03	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	10	0.43	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	140	6.03	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	40	1.72	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# MISC. AMUSEMENT, RECREATIONAL SERVICES
SIC = 799
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	10,390	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	670	6.45	N/A
FINANCIAL MANAGERS	300	2.89	23
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	130	1.25	35
FOOD SERVICE AND LODGING MANAGERS	130	1.25	32
ALL OTHER MANAGERS AND ADMINISTRATORS	120	1.15	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	740	7.12	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	100	0.96	N/A
ALL OTHER SOCIAL SCIENTISTS	120	1.15	N/A
ALL OTHER TEACHERS AND INSTRUCTORS	360	3.46	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	160	1.54	N/A
SALES AND RELATED OCCUPATIONS	660	6.35	N/A
CASHIERS	640	6.16	32
ALL OTHER SALES AND RELATED WORKERS	20	0.19	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	840	8.08	N/A
ALL OTHER SECRETARIES	130	1.25	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	310	2.98	23
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	410	3.95	N/A
SERVICE OCCUPATIONS	4,970	47.83	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	100	0.96	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	100	0.96	N/A
BARTENDERS	770	7.41	19
WAITERS AND WAITRESSES	1,170	11.26	34
COOKS, RESTAURANT	240	2.31	35
ALL OTHER FOOD SERVICE WORKERS	910	8.76	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	290	2.79	30
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	140	1.35	N/A
ALL OTHER SERVICE WORKERS	1,260	12.13	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	1,800	17.32	N/A
GARDENERS AND GROUNDSKEEPERS, EXCEPT FARM	1,650	15.88	20
ALL OTHER AGRIC,FOR,FISH, & RELATED WORKERS	160	1.54	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	700	6.74	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	550	5.29	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	20	0.19	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	90	0.87	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	40	0.38	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Health Services, Except Hospitals (SIC 80)

This industry includes establishments engaged in furnishing medical and other health services to persons. Associations or groups primarily engaged in providing medical or other health services to members are included. The firms in this industry can be divided into the following groups:

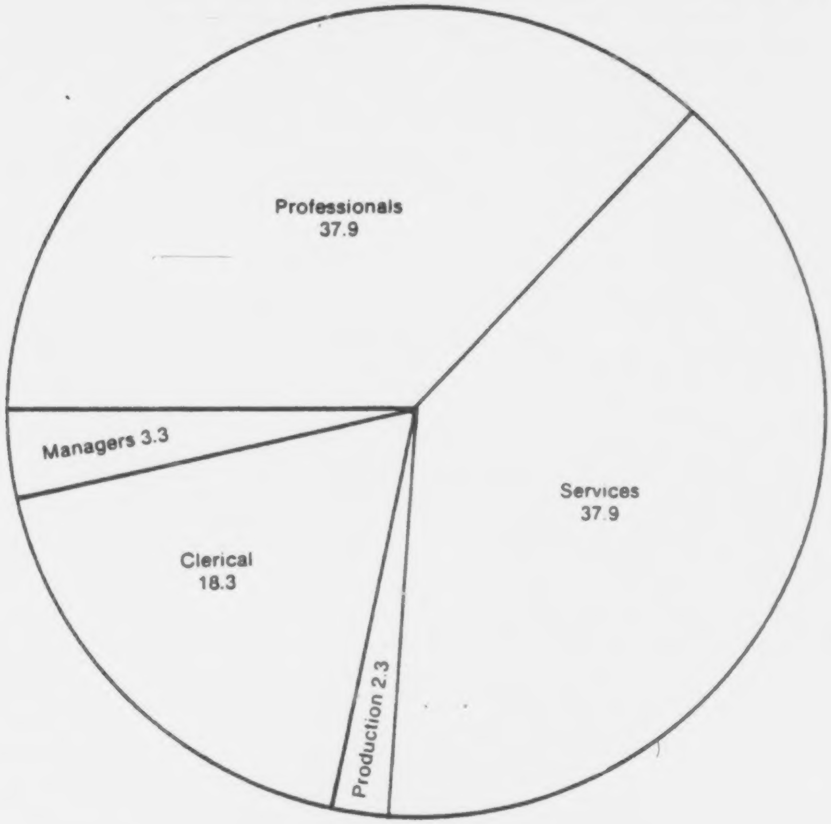
Offices of Physicians (SIC 801)
Offices of Dentists (SIC 802)
Offices of Osteopathic Physicians (SIC 803)
Offices of Health Practitioners (SIC 804)
Nursing and Personal Care Faciltities (SIC 805)
Medical and Dental Laboratories (SIC 807)
Outpatient Care Facilities (SIC 808)
Health and Allied Services (SIC 809)

There has been continuing concern to contain medical costs which will greatly influence health services. Other factors effecting this industry are: the changing demographic population, rising income, and a greater awareness of health maintenance. Since 1981, more than 19,500 workers (18.3 percent) were added to the non-hospital health services, reaching an employment level of 109,800 by 1984. In comparison, the hospital industry (private and public) with its 1984 employment level at 144,600, remained stable over the same time period. As can be seen by the table below, hospital employment has slowed while outpatient care facilities and health maintenance organizations (included in SIC 808) have mushroomed.

	Employment		Percent
	1981	1984	Change
Total (80 minus 806)	92,850	109,800	+18.3
801	17,750	22,450	+26.5
802	10,650	12,600	+18.3
803 and 804	2,400	3,400	+41.7
805	45,750	49,150	+ 7.4
807	3,750	3,950	+ 5.3
808	6,450	8,150	+26.4
809	6,100	10,100	+65.6
(806)	(144,650)	(144,650)	(0.0)

HEALTH SERVICES, EXCEPT HOSPITALS (SIC 80)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Registered Nurses	9,790
2.	Physicians and Surgeons	6,550
3.	Licensed Practical Nurses	5,750
4.	Receptionist and Information Clerks	4,430
5.	Medical Secretaries	3,910
6.	Food Preparation Workers	3,530
7.	Dental Assistants	3,390
8.	Dental Hygienists	3,030
9.	Home Health Aides	3,030
10.	Bookkeeping, Accounting and Auditing Clerks	2,390

These 10 occupational categories make up 42.1% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
HEALTH SERVICES, EXCEPT HOSPITALS
SIC = 80
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	108,710	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	3,580	3.29	N/A
FINANCIAL MANAGERS	780	0.72	18
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	90	0.08	30
PURCHASING MANAGERS	50	0.05	32
ADMINISTRATIVE SERVICES MANAGERS	420	0.39	32
MEDICINE AND HEALTH SERVICES MANAGERS	1,130	1.04	15
FOOD SERVICE AND LODGING MANAGERS	280	0.26	21
GENERAL MANAGERS AND TOP EXECUTIVES	450	0.41	27
ALL OTHER MANAGERS AND ADMINISTRATORS	380	0.35	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	41,180	37.88	N/A
ACCOUNTANTS AND AUDITORS	350	0.32	49
ALL OTHER FINANCIAL SPECIALISTS	60	0.06	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	240	0.22	N/A
ALL OTHER ENGINEERS	20	0.02	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	510	0.47	N/A
ALL OTHER LIFE SCIENTISTS	20	0.02	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	140	0.13	N/A
ALL OTHER SOCIAL SCIENTISTS	1,030	0.95	N/A
SOCIAL WORKERS, MEDICAL & PSYCHIATRIC	1,410	1.30	37
SOCIAL WORKERS, EXCEPT MEDICAL & PSYCHIATRIC	260	0.24	22
CLERGY	20	0.02	22
NURSING INSTRUCTORS	80	0.07	22
ALL OTHER TEACHERS AND INSTRUCTORS	150	0.14	N/A
PHYSICIANS AND SURGEONS	6,550	6.03	14
DENTISTS	2,340	2.15	13
OPTOMETRISTS	570	0.52	45
ALL OTHER HEALTH DIAGNOSING & TREATING PRACT.	290	0.27	N/A
OCCUPATIONAL THERAPISTS	230	0.21	38
SPEECH PATHOLOGISTS AND AUDIOLOGISTS	190	0.17	38
RECREATIONAL THERAPISTS	850	0.78	6
ALL OTHER THERAPISTS	970	0.89	N/A
REGISTERED NURSES	9,790	9.01	8
LICENSED PRACTICAL NURSES	5,750	5.29	6
PHYSICIAN'S ASSISTANTS	780	0.72	32
OPTICIANS, DISPENSING AND MEASURING	580	0.53	47
DIETITIANS AND NUTRITIONISTS	450	0.41	16
DIETETIC TECHNICIANS	230	0.21	44
MEDICAL AND CLINICAL LABORATORY TECHNOLOGISTS	940	0.86	35
MEDICAL AND CLINICAL LABORATORY TECHNICIANS	1,250	1.15	34

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
HEALTH SERVICES, EXCEPT HOSPITALS
SIC = 80
REFERENCE DATE APRIL,1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
DENTAL HYGIENISTS	3,030	2.79	10
MEDICAL RECORDS TECHNICIANS AND TECHNOLOGISTS	260	0.24	48
RADIOLOGIC TECHNICIANS	400	0.37	45
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	1,160	1.07	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	280	0.26	N/A
SALES AND RELATED OCCUPATIONS	270	0.25	N/A
ALL OTHER SALES AND RELATED WORKERS	270	0.25	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	19,860	18.27	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	530	0.49	26
MEDICAL SECRETARIES	3,910	3.60	12
ALL OTHER SECRETARIES	2,550	2.35	18
RECEPTIONIST AND INFORMATION CLERKS	4,430	4.08	14
TYPISTS	790	0.73	44
TYPISTS, WORD PROCESSING EQUIPMENT	270	0.25	49
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	60	0.06	41
FILE CLERKS	650	0.60	27
STATISTICAL CLERKS	100	0.09	49
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	2,390	2.20	11
PAYROLL AND TIMEKEEPING CLERKS	370	0.34	27
BILLING, COST AND RATE CLERKS	740	0.68	29
GENERAL OFFICE CLERKS	1,890	1.74	22
ALL OTHER OFFICE MACHINE OPERATORS	440	0.40	N/A
SWITCHBOARD OPERATORS	340	0.31	29
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	40	0.04	30
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	30	0.03	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	330	0.30	N/A
SERVICE OCCUPATIONS	41,220	37.92	N/A
HOUSEKEEPERS	1,010	0.93	12
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	130	0.12	30
GUARDS AND WATCH GUARDS	60	0.06	19
WAITERS AND WAITRESSES	40	0.04	33
FOOD SERVERS, OUTSIDE	480	0.44	25
DINING ROOM, CAFETERIA ATTENDANTS,BAR HELPERS	390	0.36	23
BAKERS, BREAD AND PASTRY	20	0.02	26
COOKS, INSTITUTION OR CAFETERIA	1,420	1.31	8
COOKS, SHORT ORDER	30	0.03	41
FOOD PREPARATION WORKERS	3,530	3.25	5
ALL OTHER FOOD SERVICE WORKERS	520	0.48	N/A
DENTAL ASSISTANTS	3,390	3.12	12
MEDICAL ASSISTANTS	1,340	1.23	27

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# HEALTH SERVICES, EXCEPT HOSPITALS
SIC = 80
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
NURSING AIDES, ORDERLIES, AND ATTENDANTS	20,660	19.00	2
HOME HEALTH AIDES	3,030	2.79	22
PSYCHIATRIC AIDES	10	0.01	40
PHYSICAL & CORRECTIVE THERAPY ASSISTANT,AIDES	270	0.25	50
OCCUPATIONAL THERAPY ASSISTANTS AND AIDES	120	0.11	27
ALL OTHER HEALTH SERVICE WORKERS	150	0.14	N/A
MAIDS AND HOUSEKEEPING CLEANERS	2,310	2.12	10
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	1,410	1.30	10
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	80	0.07	23
BARBERS	10	0.01	35
HAIRDRESSERS, HAIRSTYLISTS, & COSMETOLOGISTS	20	0.02	27
CHILD CARE WORKERS	20	0.02	44
ALL OTHER SERVICE WORKERS	780	0.72	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	90	0.08	N/A
GARDENERS AND GROUNDSKEEPERS, EXCEPT FARM	90	0.08	44
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,520	2.32	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	60	0.06	N/A
ALL OTHER MACHINERY MAINTENANCE MECHANICS	20	0.02	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	640	0.59	13
MENDERS-GARMENTS, LINENS, AND RELATED	20	0.02	35
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	10	0.01	N/A
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	20	0.02	36
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.01	N/A
ALL OTHER PRECISION WORKERS	140	0.13	N/A
LAUNDRY,DRYCLEANING MACH OPER,TEND,EXC PRESS	1,100	1.01	7
PRESSING MACH OPER & TENDERS-TEXTILE, GARMENT	30	0.03	43
ALL OTHER MACHINE OPERATORS AND TENDERS	10	0.01	N/A
ALL OTHER HAND WORKERS	20	0.02	47
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	200	0.18	47
ALL OTHER MOTOR VEHICLE OPERATORS	220	0.20	32
HELPERS, LABORERS, AND MATERIAL MOVERS, HAND	10	0.01	47
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	10	0.01	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
OFFICES OF PHYSICIANS
SIC = 801
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	22,270	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	520	2.33	N/A
FINANCIAL MANAGERS	310	1.39	34
MEDICINE AND HEALTH SERVICES MANAGERS	120	0.54	49
ALL OTHER MANAGERS AND ADMINISTRATORS	80	0.36	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	10,530	47.28	N/A
ALL OTHER FINANCIAL SPECIALISTS	60	0.27	N/A
ALL OTHER LIFE SCIENTISTS	20	0.09	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	60	0.27	N/A
ALL OTHER SOCIAL SCIENTISTS	220	0.99	N/A
PHYSICIANS AND SURGEONS	5,430	24.38	13
ALL OTHER HEALTH DIAGNOSING & TREATING PRACT.	130	0.58	N/A
ALL OTHER THERAPISTS	140	0.63	N/A
REGISTERED NURSES	1,970	8.85	22
LICENSED PRACTICAL NURSES	830	3.73	30
PHYSICIAN'S ASSISTANTS	450	2.02	43
MEDICAL AND CLINICAL LABORATORY TECHNOLOGISTS	270	1.21	42
MEDICAL AND CLINICAL LABORATORY TECHNICIANS	290	1.30	44
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	640	2.87	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	10	0.04	N/A
SALES AND RELATED OCCUPATIONS	40	0.18	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	9,430	42.34	N/A
MEDICAL SECRETARIES	2,730	12.26	13
ALL OTHER SECRETARIES	790	3.55	33
RECEPTIONIST AND INFORMATION CLERKS	1,830	8.22	23
TYPISTS	280	1.26	40
FILE CLERKS	540	2.42	29
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	830	3.73	22
BILLING, COST AND RATE CLERKS	570	2.56	34
GENERAL OFFICE CLERKS	880	3.95	40
ALL OTHER OFFICE MACHINE OPERATORS	250	1.12	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	730	3.28	N/A
SERVICE OCCUPATIONS	1,680	7.54	N/A
MEDICAL ASSISTANTS	1,150	5.16	28
ALL OTHER HEALTH SERVICE WORKERS	50	0.22	N/A
MAIDS AND HOUSEKEEPING CLEANERS	250	1.12	43
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	230	1.03	43
ALL OTHER SERVICE WORKERS	10	0.04	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	80	0.36	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
OFFICES OF DENTISTS
SIC = 802
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	12,520	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	20	0.16	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	5,670	45.29	N/A
DENTISTS	2,270	18.13	14
DENTAL HYGIENISTS	3,020	24.12	10
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	380	3.04	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	3,470	27.72	N/A
MEDICAL SECRETARIES	450	3.59	31
ALL OTHER SECRETARIES	780	6.23	29
RECEPTIONIST AND INFORMATION CLERKS	1,460	11.66	17
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	360	2.88	35
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	420	3.35	N/A
SERVICE OCCUPATIONS	3,360	26.84	N/A
DENTAL ASSISTANTS	3,360	26.84	12
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	10	0.08	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
OFFICES OF OTHER HEALTH PRACTITIONERS
SIC = 804
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER^1	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	3,340	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	20	0.60	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	1,860	55.69	N/A
ALL OTHER SOCIAL SCIENTISTS	210	6.29	N/A
OPTOMETRISTS	500	14.97	50
ALL OTHER HEALTH DIAGNOSING & TREATING PRACT.	170	5.09	N/A
ALL OTHER THERAPISTS	180	5.39	N/A
OPTICIANS, DISPENSING AND MEASURING	580	17.37	47
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	220	6.59	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,250	37.43	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.30	46
ALL OTHER SECRETARIES	370	11.08	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	870	26.05	N/A
SERVICE OCCUPATIONS	190	5.69	N/A
ALL OTHER HEALTH SERVICE WORKERS	170	5.09	N/A
ALL OTHER SERVICE WORKERS	20	0.60	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	20	0.60	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
NURSING AND PERSONAL CARE FACILITIES
SIC = 805
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	48,730	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,590	3.26	N/A
FINANCIAL MANAGERS	230	0.47	19
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	40	0.08	26
PURCHASING MANAGERS	30	0.06	31
ADMINISTRATIVE SERVICES MANAGERS	220	0.45	19
MEDICINE AND HEALTH SERVICES MANAGERS	490	1.01	9
FOOD SERVICE AND LODGING MANAGERS	280	0.57	21
GENERAL MANAGERS AND TOP EXECUTIVES	210	0.43	13
ALL OTHER MANAGERS AND ADMINISTRATORS	110	0.23	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	12,090	24.81	N/A
ACCOUNTANTS AND AUDITORS	150	0.31	27
ALL OTHER FINANCIAL SPECIALISTS	20	0.04	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	70	0.14	N/A
ALL OTHER ENGINEERS	10	0.02	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.02	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.02	N/A
PSYCHOLOGISTS	20	0.04	38
ALL OTHER SOCIAL SCIENTISTS	10	0.02	35
SOCIAL WORKERS, MEDICAL & PSYCHIATRIC	360	0.74	12
SOCIAL WORKERS, EXCEPT MEDICAL & PSYCHIATRIC	210	0.43	13
SOCIAL SERVICE TECHNICIANS	60	0.12	40
CLERGY	20	0.04	22
NURSING INSTRUCTORS	80	0.16	21
TEACHERS & INSTRUCTORS, VOC ED AND TRAINING	10	0.02	44
ALL OTHER TEACHERS AND INSTRUCTORS	20	0.04	N/A
PHYSICIANS AND SURGEONS	30	0.06	64
ALL OTHER HEALTH DIAGNOSING & TREATING PRACT.	**	0.00	N/A
OCCUPATIONAL THERAPISTS	80	0.16	25
PHYSICAL THERAPISTS	120	0.25	18
SPEECH PATHOLOGISTS AND AUDIOLOGISTS	40	0.08	28
RECREATIONAL THERAPISTS	840	1.72	6
ALL OTHER THERAPISTS	60	0.12	N/A
REGISTERED NURSES	4,240	8.70	3
LICENSED PRACTICAL NURSES	4,610	9.46	4
PHARMACISTS	20	0.04	49
DIETITIANS AND NUTRITIONISTS	310	0.64	15
DIETETIC TECHNICIANS	230	0.47	44
MEDICAL RECORDS TECHNICIANS AND TECHNOLOGISTS	120	0.25	14
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	210	0.43	N/A

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
NURSING AND PERSONAL CARE FACILITIES
SIC = 805
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	10	0.02	45
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	140	0.29	47
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,730	3.55	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	120	0.25	16
MEDICAL SECRETARIES	140	0.29	13
ALL OTHER SECRETARIES	230	0.47	12
RECEPTIONIST AND INFORMATION CLERKS	180	0.37	12
TYPISTS	30	0.06	35
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	30	0.06	25
FILE CLERKS	10	0.02	43
STATISTICAL CLERKS	10	0.02	35
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	510	1.05	8
PAYROLL AND TIMEKEEPING CLERKS	120	0.25	15
BILLING, COST AND RATE CLERKS	10	0.02	24
GENERAL OFFICE CLERKS	160	0.33	15
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.02	44
SWITCHBOARD OPERATORS	110	0.23	12
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	20	0.04	34
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	50	0.10	N/A
SERVICE OCCUPATIONS	31,370	64.38	N/A
HOUSEKEEPERS	930	1.91	13
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	120	0.25	31
GUARDS AND WATCH GUARDS	40	0.08	20
WAITERS AND WAITRESSES	40	0.08	33
FOOD SERVERS, OUTSIDE	480	0.99	25
DINING ROOM, CAFETERIA ATTENDANTS,BAR HELPERS	390	0.80	23
BAKERS, BREAD AND PASTRY	20	0.04	26
COOKS, INSTITUTION OR CAFETERIA	1,420	2.91	8
COOKS, SHORT ORDER	30	0.06	41
FOOD PREPARATION WORKERS	3,530	7.24	5
ALL OTHER FOOD SERVICE WORKERS	520	1.07	N/A
NURSING AIDES, ORDERLIES, AND ATTENDANTS	20,160	41.37	2
PSYCHIATRIC AIDES	10	0.02	40
PHYSICAL & CORRECTIVE THERAPY ASSISTANT,AIDES	190	0.39	15
OCCUPATIONAL THERAPY ASSISTANTS AND AIDES	120	0.25	23
ALL OTHER HEALTH SERVICE WORKERS	100	0.21	N/A
MAIDS AND HOUSEKEEPING CLEANERS	1,870	3.84	7
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	1,080	2.22	8
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	80	0.16	23
BARBERS	10	0.02	35

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
NURSING AND PERSONAL CARE FACILITIES
SIC = 805
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
HAIRDRESSERS, HAIRSTYLISTS, & COSMETOLOGISTS	20	0.04	27
CHILD CARE WORKERS	20	0.04	44
ALL OTHER SERVICE WORKERS	210	0.43	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	90	0.18	N/A
GARDENERS AND GROUNDSKEEPERS, EXCEPT FARM	90	0.18	45
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,860	3.82	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	10	0.02	44
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	40	0.08	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	560	1.15	10
MENDERS-GARMENTS, LINENS, AND RELATED	20	0.04	35
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	10	0.02	N/A
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	20	0.04	36
ALL OTHER CONSTRUCTION TRADES WORKERS	20	0.04	N/A
SEWING MACHINE OPERATORS, NON-GARMENT	10	0.02	N/A
LAUNDRY,DRYCLEANING MACH OPER,TEND,EXC PRESS	1,100	2.26	7
PRESSING MACH OPER & TENDERS-TEXTILE, GARMENT	30	0.06	43
ALL OTHER HAND WORKERS	20	0.04	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	20	0.04	26
HELPERS, LABORERS, AND MATERIAL MOVERS, HAND	10	0.02	47

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MEDICAL AND DENTAL LABORATORIES
SIC = 807
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	3,920	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	230	5.87	N/A
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.26	31
PURCHASING MANAGERS	10	0.26	38
ALL OTHER MANAGERS AND ADMINISTRATORS	210	5.36	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	1,960	50.00	N/A
ACCOUNTANTS AND AUDITORS	10	0.26	44
ALL OTHER FINANCIAL SPECIALISTS	20	0.51	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.26	N/A
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	100	2.55	N/A
COMPUTER PROGRAMMERS	10	0.26	25
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.26	N/A
MEDICAL AND CLINICAL LABORATORY TECHNOLOGISTS	630	16.07	48
MEDICAL AND CLINICAL LABORATORY TECHNICIANS	780	19.90	48
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	380	9.69	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	10	0.26	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,250	31.89	N/A
ALL OTHER SECRETARIES	190	4.85	N/A
PROCUREMENT CLERKS	10	0.26	40
PAYROLL AND TIMEKEEPING CLERKS	10	0.26	24
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.26	44
DATA ENTRY KEYERS, EXCEPT COMPOSING	60	1.53	45
ALL OTHER OFFICE MACHINE OPERATORS	10	0.26	N/A
SWITCHBOARD OPERATORS	10	0.26	24
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	10	0.26	50
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	960	24.49	N/A
SERVICE OCCUPATIONS	40	1.02	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	440	11.22	N/A
ALL OTHER PRECISION WORKERS	110	2.81	N/A
ALL OTHER HAND WORKERS	10	0.26	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	330	8.42	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less tnan 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
HEALTH AND ALLIED SERVICES N E C
SIC = 809
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	10,050	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	580	5.77	N/A
FINANCIAL MANAGERS	90	0.90	25
MEDICINE AND HEALTH SERVICES MANAGERS	220	2.19	37
GENERAL MANAGERS AND TOP EXECUTIVES	60	0.60	46
ALL OTHER MANAGERS AND ADMINISTRATORS	210	2.09	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	4,390	43.68	N/A
ALL OTHER FINANCIAL SPECIALISTS	20	0.20	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	80	0.80	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	470	4.68	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	30	0.30	N/A
ALL OTHER SOCIAL SCIENTISTS	30	0.30	N/A
SOCIAL WORKERS, MEDICAL & PSYCHIATRIC	90	0.90	42
ALL OTHER TEACHERS AND INSTRUCTORS	40	0.40	N/A
ALL OTHER HEALTH DIAGNOSING & TREATING PRACT.	10	0.10	N/A
LICENSED PRACTICAL NURSES	90	0.90	49
PHYSICAL THERAPISTS	380	3.78	30
ALL OTHER THERAPISTS	130	1.29	N/A
REGISTERED NURSES	2,750	27.36	17
LICENSED PRACTICAL NURSES	110	1.09	29
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	120	1.19	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	30	0.30	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,330	13.23	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	60	0.60	44
MEDICAL SECRETARIES	90	0.90	48
ALL OTHER SECRETARIES	260	2.59	36
RECEPTIONIST AND INFORMATION CLERKS	150	1.49	47
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	180	1.79	25
PAYROLL AND TIMEKEEPING CLERKS	40	0.40	38
GENERAL OFFICE CLERKS	210	2.09	36
ALL OTHER OFFICE MACHINE OPERATORS	50	0.50	N/A
SWITCHBOARD OPERATORS	30	0.30	47
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	20	0.20	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	230	2.29	N/A
SERVICE OCCUPATIONS	3,670	36.52	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	10	0.10	N/A
HOME HEALTH AIDES	2,900	28.86	23
ALL OTHER HEALTH SERVICE WORKERS	160	1.59	N/A
ALL OTHER SERVICE WORKERS	600	5.97	N/A

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# HEALTH AND ALLIED SERVICES N E C
SIC = 809
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	90	0.90	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.10	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.10	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	60	0.60	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Legal Services (SIC 81)

This industry includes establishments engaged in offering legal advice or legal services, the head or heads of which are members of the bar.

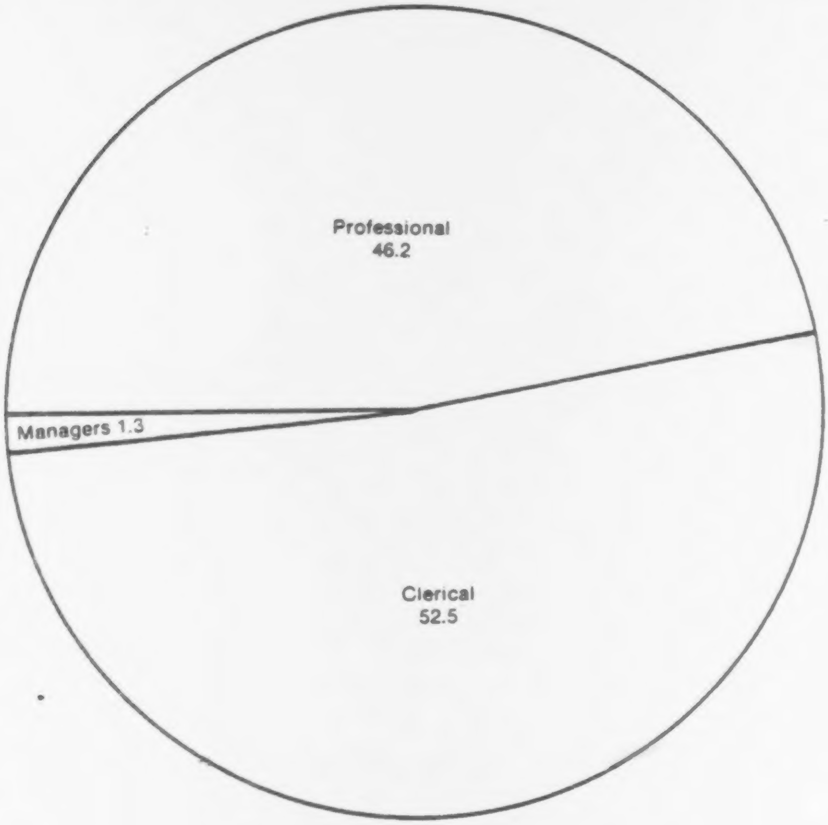
The legal service industry has continued to expand in employment. Between 1981 and 1984, almost 4,250 jobs were added, an increase of 29.4 percent. The 1984 employment level averaged around 18,600 workers.

The occupational structure of legal services is almost solely comprised within two occupational categories: professional, paraprofessional, technical occupations (46.2 percent) and clerical and administrative support occupations (52.5 percent). A comparison of the occupations from the last survey conducted in 1981 indicates increasing share of employment of these industry specific occupations: lawyers show a 6.9 percentage increase and paralegal personnel show a 1.8 percent increase.

	Distribution	
	1984	1981
Managerial and Administrative	1.2	5.0
Professional, Paraprofessional, & Technical	46.2	39.3
Clerical and Administrative	52.5	53.7
Service	0.1	2.0

LEGAL SERVICES (SIC 81)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Legal Secretaries	6,670
2.	Lawyers	6,210
3.	Paralegal Personnel	1,500
4.	All Other Clerical and Administrative Support Workers	1,480
5.	Law Clerks	580
6.	Bookkeeping, Accounting and Auditing Clerks	480
7.	Typists, Word Processing Equipment	380
8.	All Other Office Machine Operators	220
9.	All Other Communication Equipment Operators	220
10.	All Other Managers and Administrators	180

These 10 occupational categories make up 97.6% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
LEGAL SERVICES
SIC = 81
REFERENCE DATE MAY, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	18,370	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	230	1.25	N/A
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.11	47
GENERAL MANAGERS AND TOP EXECUTIVES	30	0.16	40
ALL OTHER MANAGERS AND ADMINISTRATORS	180	0.98	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	8,480	46.16	N/A
ACCOUNTANTS AND AUDITORS	20	0.11	10
ALL OTHER FINANCIAL SPECIALISTS	20	0.11	N/A
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.05	17
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.05	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	30	0.16	N/A
LAWYERS	6,210	33.81	11
LAW CLERKS	580	3.16	43
PARALEGAL PERSONNEL	1,500	8.17	32
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	20	0.11	N/A
ALL OTHER TEACHERS AND INSTRUCTORS	80	0.44	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	9,650	52.53	N/A
LEGAL SECRETARIES	6,670	36.31	11
TYPISTS, WORD PROCESSING EQUIPMENT	380	2.07	34
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.05	25
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	480	2.61	37
DUPLICATING MACHINE OPERATORS	30	0.16	25
ALL OTHER OFFICE MACHINE OPERATORS	220	1.20	N/A
ALL OTHER COMMUNICATIONS EQUIPMENT OPERATORS	220	1.20	N/A
MESSENGERS	170	0.93	49
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.05	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	1,480	8.06	N/A
SERVICE OCCUPATIONS	10	0.05	N/A
ALL OTHER SERVICE WORKERS	10	0.05	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Social Services (SIC 83)

This major industry includes establishments providing social services and rehabilitation services to those persons with social or personal problems requiring special services, and to the handicapped and the disadvantaged. Also included are organizations soliciting funds to be used directly for these and related services. The firms in this industry can be divided into the following groups:

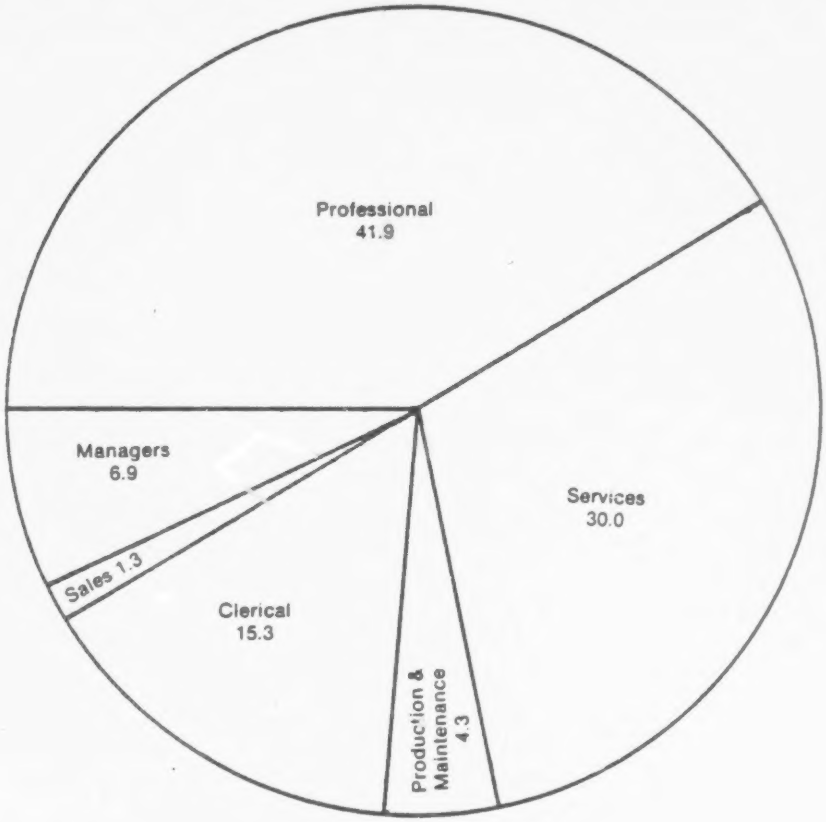
- Individual and Family Social Services (SIC 832)
- Job Training and Vocational Rehabilitation Services (SIC 833)
- Child Day Care Services (SIC 835)
- Residential Care (SIC 836)
- Social Services, Not Elsewhere Classified (SIC 839)

The social service industry has grown 16.1 percent, an additional 6,450 jobs, since the last survey conducted in 1981. There have been significant increases among many of the industrial groups within social services between the survey years, i.e. job training and vocational rehabilitation services (+20.8 percent) and child day care services (+38.8 percent).

The occupational structure of the social service industry is largely dominated by two occupational categories: professional, paraprofessional, technical occupations, 41.9 percent; and service occupations, 30.0 percent. Within the professional,paraprofessional, technical occupations, more than 31 percent are in teaching occupations: teachers, preschool and kindergarten, 67.5 percent; teachers, elementary school, 1.0 percent; vocational teachers and instructors, 14.1 percent; and nonvocational instructors, 17.6 percent. As more and more enter, reenter, or stay in the work force, the increase of responsible day care for young children is a growing necessity.

SOCIAL SERVICES (SIC 83)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Teachers, Preschool and Kindergarten	4,140
2.	Social Welfare Service Aides	4,020
3.	Social Workers, Except Medical and Psychiatric	3,200
4.	Social Service Technicians	2,090
5.	Secretaries	1,770
6.	Teacher Aides and Educational Assist., Clerical	1,730
7.	Child Care Workers	1,660
8.	Home Health Aides	1,570
9.	Nursing Aides, Orderlies, and Attendants	1,420
10.	Social Workers, Medical and Psychiatric	1,400

These 10 occupational categories make up 49.2% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
SOCIAL SERVICES
SIC = 83
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	46,740	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	3,240	6.93	N/A
FINANCIAL MANAGERS	550	1.18	16
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	90	0.19	26
ADMINISTRATIVE SERVICES MANAGERS	380	0.81	26
EDUCATION ADMINISTRATORS	210	0.45	26
MEDICINE AND HEALTH SERVICES MANAGERS	140	0.30	31
FOOD SERVICE AND LODGING MANAGERS	140	0.30	30
GENERAL MANAGERS AND TOP EXECUTIVES	1,050	2.25	13
ALL OTHER MANAGERS AND ADMINISTRATORS	680	1.45	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	19,600	41.93	N/A
ACCOUNTANTS AND AUDITORS	190	0.41	27
ALL OTHER FINANCIAL SPECIALISTS	60	0.13	N/A
EMPLOYMENT INTERVIEWERS, PRIVATE OR PUBLIC	60	0.13	41
ALL OTHER MANAGEMENT SUPPORT WORKERS	950	2.03	N/A
STATISTICIANS	40	0.09	49
ALL OTHER MATHEMATICAL SCIENTISTS	30	0.06	N/A
PSYCHOLOGISTS	300	0.64	35
ALL OTHER SOCIAL SCIENTISTS	50	0.11	N/A
SOCIAL WORKERS, MEDICAL & PSYCHIATRIC	1,400	3.00	34
SOCIAL WORKERS, EXCEPT MEDICAL & PSYCHIATRIC	3,200	6.85	13
SOCIAL SERVICE TECHNICIANS	2,090	4.47	33
RECREATION WORKERS	1,160	2.48	28
CLERGY	10	0.02	40
ALL OTHER RELIGIOUS WORKERS	20	0.04	N/A
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	40	0.09	N/A
TEACHERS, PRESCHOOL AND KINDERGARTEN	4,140	8.86	14
TEACHERS, ELEMENTARY SCHOOL	50	0.11	27
TEACHERS & INSTRUCTORS, VOC ED AND TRAINING	860	1.84	37
INSTRUCTORS, NONVOCATIONAL EDUCATION	1,080	2.31	33
ALL OTHER TEACHERS AND INSTRUCTORS	840	1.80	N/A
VOCATIONAL AND EDUCATIONAL COUNSELORS	470	1.01	33
INSTRUCTIONAL COORDINATORS	70	0.15	44
PHYSICIANS AND SURGEONS	60	0.13	35
RECREATIONAL THERAPISTS	50	0.11	43
ALL OTHER THERAPISTS	150	0.32	N/A
REGISTERED NURSES	580	1.24	17
LICENSED PRACTICAL NURSES	480	1.03	35
DIETITIANS AND NUTRITIONISTS	100	0.21	39
DIETETIC TECHNICIANS	60	0.13	44

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
SOCIAL SERVICES
SIC = 83
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
MEDICAL RECORDS TECHNICIANS AND TECHNOLOGISTS	30	0.06	22
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	760	1.63	25
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	140	0.30	43
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	80	0.17	N/A
SALES AND RELATED OCCUPATIONS	610	1.31	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	180	0.39	42
CASHIERS	10	0.02	17
ALL OTHER SALES AND RELATED WORKERS	420	0.90	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	7,160	15.32	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	370	0.79	32
WELFARE ELIGIBILITY WORKERS & INTERVIEWERS	320	0.68	48
TEACHER AIDES & EDUCATIONAL ASSIST, CLERICAL	1,730	3.70	20
SECRETARIES	1,770	3.79	15
STENOGRAPHERS	40	0.09	40
RECEPTIONIST AND INFORMATION CLERKS	490	1.05	21
TYPISTS	270	0.58	22
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	50	0.11	27
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	830	1.78	12
PAYROLL AND TIMEKEEPING CLERKS	130	0.28	22
BILLING, COST AND RATE CLERKS	90	0.19	34
GENERAL OFFICE CLERKS	680	1.45	16
BILLING, POSTING, CALCULATING MACH. OPERATORS	30	0.06	44
DUPLICATING MACHINE OPERATORS	10	0.02	50
MAIL MACH. OPERATORS, PREPARATION & HANDLING	10	0.02	14
ALL OTHER OFFICE MACHINE OPERATORS	40	0.09	N/A
SWITCHBOARD OPERATORS	90	0.19	24
MESSENGERS	10	0.02	40
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	50	0.11	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	170	0.36	N/A
SERVICE OCCUPATIONS	14,040	30.04	N/A
HOUSEKEEPERS	190	0.41	34
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	220	0.47	38
ALL OTHER PROTECTIVE SERVICE WORKERS	170	0.36	N/A
WAITERS AND WAITRESSES	360	0.77	46
COOKS, INSTITUTION OR CAFETERIA	760	1.63	14
FOOD PREPARATION WORKERS	610	1.31	24
ALL OTHER FOOD SERVICE WORKERS	510	1.09	N/A
NURSING AIDES, ORDERLIES, AND ATTENDANTS	1,420	3.04	22
HOME HEALTH AIDES	1,570	3.36	46
ALL OTHER HEALTH SERVICE WORKERS	900	1.93	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
SOCIAL SERVICES
SIC = 83
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
MAIDS AND HOUSEKEEPING CLEANERS	350	0.75	29
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	800	1.71	17
SOCIAL WELFARE SERVICE AIDES	4,020	8.60	16
CHILD CARE WORKERS	1,660	3.55	25
ALL OTHER SERVICE WORKERS	510	1.09	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	70	0.15	N/A
ALL OTHER AGRIC,FOR,FISH, & RELATED WORKERS	70	0.15	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,020	4.32	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	260	0.56	39
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	100	0.21	N/A
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	30	0.06	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	260	0.56	25
ELECTRICIANS	10	0.02	N/A
ALL OTHER EXTRACTIVE WORKERS, EXCEPT HELPERS	70	0.15	N/A
ALL OTHER PRECISION WORKERS	30	0.06	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	70	0.15	N/A
HAND WORKING OCC'S,INCLUDING ASSEMBLER & FAB.	130	0.28	40
BUS DRIVERS	80	0.17	40
BUS DRIVERS, SCHOOL	250	0.53	47
ALL OTHER MOTOR VEHICLE OPERATORS	330	0.71	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	420	0.90	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
INDIVIDUAL AND FAMILY SERVICES
SIC = 832
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	17,820	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,160	6.51	N/A
FINANCIAL MANAGERS	220	1.23	18
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	50	0.28	19
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.06	29
ADMINISTRATIVE SERVICES MANAGERS	220	1.23	31
EDUCATION ADMINISTRATORS	30	0.17	44
MEDICINE AND HEALTH SERVICES MANAGERS	70	0.39	41
FOOD SERVICE AND LODGING MANAGERS	80	0.45	46
GENERAL MANAGERS AND TOP EXECUTIVES	310	1.74	24
ALL OTHER MANAGERS AND ADMINISTRATORS	160	0.90	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	6,570	36.87	N/A
ACCOUNTANTS AND AUDITORS	70	0.39	38
ALL OTHER FINANCIAL SPECIALISTS	10	0.06	N/A
EMPLOYMENT INTERVIEWERS, PRIVATE OR PUBLIC	10	0.06	27
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	30	0.17	30
ALL OTHER MANAGEMENT SUPPORT WORKERS	150	0.84	N/A
COMPUTER PROGRAMMER AIDES	10	0.06	28
STATISTICIANS	30	0.17	32
PSYCHOLOGISTS	220	1.23	35
ALL OTHER SOCIAL SCIENTISTS	10	0.06	N/A
SOCIAL WORKERS, MEDICAL & PSYCHIATRIC	850	4.77	23
SOCIAL WORKERS, EXCEPT MEDICAL & PSYCHIATRIC	1,980	11.11	12
SOCIAL SERVICE TECHNICIANS	790	4.43	27
RECREATION WORKERS	650	3.65	33
PARALEGAL PERSONNEL	10	0.06	N/A
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	20	0.11	N/A
TEACHERS, PRESCHOOL AND KINDERGARTEN	170	0.95	33
TEACHERS, ELEMENTARY SCHOOL	20	0.11	26
INSTRUCTORS, NONVOCATIONAL EDUCATION	190	1.07	32
ALL OTHER TEACHERS AND INSTRUCTORS	490	2.75	38
PHYSICIANS AND SURGEONS	30	0.17	10
RECREATIONAL THERAPISTS	10	0.06	45
ALL OTHER THERAPISTS	30	0.17	N/A
REGISTERED NURSES	170	0.95	25
LICENSED PRACTICAL NURSES	90	0.51	36
DIETITIANS AND NUTRITIONISTS	40	0.22	32
DIETETIC TECHNICIANS	40	0.22	29
MEDICAL RECORDS TECHNICIANS AND TECHNOLOGISTS	20	0.11	29

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# INDIVIDUAL AND FAMILY SERVICES
SIC = 832
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	370	2.08	12
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	30	0.17	37
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	50	0.28	N/A
SALES AND RELATED OCCUPATIONS	60	0.34	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	40	0.22	9
CASHIERS	10	0.06	20
ALL OTHER SALES AND RELATED WORKERS	10	0.06	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	2,420	13.58	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	70	0.39	33
TEACHER AIDES & EDUCATIONAL ASSIST, CLERICAL	200	1.12	31
SECRETARIES	790	4.43	10
STENOGRAPHERS	20	0.11	4
RECEPTIONIST AND INFORMATION CLERKS	230	1.29	19
TYPISTS	100	0.56	28
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	30	0.17	35
FILE CLERKS	10	0.06	33
INTERVIEW CLERKS,EXC PERSONNEL,SOCIAL WELFARE	10	0.06	17
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	260	1.46	17
PAYROLL AND TIMEKEEPING CLERKS	60	0.34	18
BILLING, COST AND RATE CLERKS	50	0.28	22
GENERAL OFFICE CLERKS	390	2.19	11
BILLING, POSTING, CALCULATING MACH. OPERATORS	20	0.11	47
DUPLICATING MACHINE OPERATORS	10	0.06	35
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.06	35
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.06	20
SWITCHBOARD OPERATORS	40	0.22	26
MESSENGERS	10	0.06	40
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	130	0.73	N/A
SERVICE OCCUPATIONS	7,140	40.07	N/A
HOUSEKEEPERS	20	0.11	20
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	50	0.28	21
WAITERS AND WAITRESSES	10	0.06	N/A
DINING ROOM, CAFETERIA ATTENDANTS,BAR HELPERS	40	0.22	16
COUNTER ATTENDANTS-LUNCHROOM,COFFEE SHOP, ETC	20	0.11	N/A
COOKS, INSTITUTION OR CAFETERIA	90	0.51	34
FOOD PREPARATION WORKERS	90	0.51	28
ALL OTHER FOOD SERVICE WORKERS	60	0.34	N/A
HOME HEALTH AIDES	1,320	7.41	17
PSYCHIATRIC AIDES	10	0.06	N/A
ALL OTHER HEALTH SERVICE WORKERS	710	3.98	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
INDIVIDUAL AND FAMILY SERVICES

SIC = 832
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
MAIDS AND HOUSEKEEPING CLEANERS	100	0.56	9
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	250	1.40	29
SOCIAL WELFARE SERVICE AIDES	3,600	20.20	10
CHILD CARE WORKERS	750	4.21	37
ALL OTHER SERVICE WORKERS	10	0.06	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	470	2.64	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	130	0.73	48
MAINTENANCE REPAIRERS, GENERAL UTILITY	40	0.22	N/A
ALL OTHER EXTRACTIVE WORKERS, EXCEPT HELPERS	20	0.11	34
PRECISION PRODUCTION OCCUPATIONS	30	0.17	92
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	30	0.17	44
BUS DRIVERS	70	0.39	41
DRIVER/SALES WORKERS	40	0.22	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	120	0.67	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
JOB TRAINING AND RELATED SERVICES
SIC = 833
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	3,640	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	270	7.42	N/A
FINANCIAL MANAGERS	40	1.10	36
EDUCATION ADMINISTRATORS	20	0.55	49
FOOD SERVICE AND LODGING MANAGERS	10	0.27	28
GENERAL MANAGERS AND TOP EXECUTIVES	110	3.02	36
ALL OTHER MANAGERS AND ADMINISTRATORS	100	2.75	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	1,880	51.65	N/A
ALL OTHER FINANCIAL SPECIALISTS	40	1.10	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	360	9.89	N/A
ALL OTHER SOCIAL SCIENTISTS	10	0.27	N/A
SOCIAL WORKERS, EXCEPT MEDICAL & PSYCHIATRIC	40	1.10	30
SOCIAL SERVICE TECHNICIANS	120	3.30	37
RECREATION WORKERS	20	0.55	30
ALL OTHER TEACHERS AND INSTRUCTORS	870	23.90	N/A
VOCATIONAL AND EDUCATIONAL COUNSELORS	230	6.32	33
ALL OTHER THERAPISTS	70	1.92	N/A
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	30	0.82	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	100	2.75	N/A
SALES AND RELATED OCCUPATIONS	170	4.67	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	500	13.74	N/A
SECRETARIES	150	4.12	26
TYPISTS	50	1.37	48
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.27	28
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	120	3.30	36
GENERAL OFFICE CLERKS	20	0.55	46
ALL OTHER OFFICE MACHINE OPERATORS	10	0.27	N/A
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	20	0.55	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	130	3.57	N/A
SERVICE OCCUPATIONS	220	6.04	N/A
GUARDS AND WATCH GUARDS	40	1.10	34
COOKS, INSTITUTION OR CAFETERIA	20	0.55	25
FOOD PREPARATION WORKERS	20	0.55	38
ALL OTHER HEALTH SERVICE WORKERS	10	0.27	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	20	0.55	35
ALL OTHER SERVICE WORKERS	110	3.02	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	600	16.48	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	90	2.47	N/A
INSPECTORS AND RELATED OCCUPATIONS	10	0.27	50
MAINTENANCE REPAIRERS, GENERAL UTILITY	40	1.10	42

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
JOB TRAINING AND RELATED SERVICES
SIC = 833
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
HAND WORKING OCC'S,INCLUDING ASSEMBLER & FAB.	130	3.57	40
ALL OTHER MOTOR VEHICLE OPERATORS	20	0.55	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	300	8.24	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
CHILD DAY CARE SERVICES
SIC = 835
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	7,030	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	430	6.12	N/A
FINANCIAL MANAGERS	110	1.56	46
EDUCATION ADMINISTRATORS	30	0.43	44
GENERAL MANAGERS AND TOP EXECUTIVES	170	2.42	31
ALL OTHER MANAGERS AND ADMINISTRATORS	110	1.56	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	4,160	59.17	N/A
ALL OTHER FINANCIAL SPECIALISTS	50	0.71	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	50	0.71	N/A
ALL OTHER SOCIAL SCIENTISTS	150	2.13	N/A
SOCIAL WORKERS, EXCEPT MEDICAL & PSYCHIATRIC	80	1.14	43
TEACHERS, PRESCHOOL AND KINDERGARTEN	3,590	51.07	12
INSTRUCTIONAL COORDINATORS	30	0.43	45
ALL OTHER THERAPISTS	10	0.14	N/A
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	50	0.71	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	160	2.28	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,490	21.19	N/A
TEACHER AIDES & EDUCATIONAL ASSIST, CLERICAL	1,140	16.22	24
SECRETARIES	100	1.42	31
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	140	1.99	38
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	100	1.42	N/A
SERVICE OCCUPATIONS	780	11.10	N/A
COOKS, INSTITUTION OR CAFETERIA	240	3.41	24
FOOD PREPARATION WORKERS	40	0.57	50
ALL OTHER FOOD SERVICE WORKERS	20	0.28	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	160	2.28	35
CHILD CARE WORKERS	240	3.41	49
ALL OTHER SERVICE WORKERS	80	1.14	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	180	2.56	N/A
BUS DRIVERS, SCHOOL	140	1.99	32
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	40	0.57	N/A

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
RESIDENTIAL CARE
SIC = 836
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	8,430	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	530	6.29	N/A
PERSONNEL, TRAINING, AND LABOR RELATIONS MGRS.	10	0.12	33
MARKETING, ADVERTISING, PUBLIC RELATIONS MGRS.	10	0.12	35
ADMINISTRATIVE SERVICES MANAGERS	50	0.59	48
EDUCATION ADMINISTRATORS	90	1.07	39
MEDICINE AND HEALTH SERVICES MANAGERS	30	0.36	29
FOOD SERVICE AND LODGING MANAGERS	50	0.59	38
GENERAL MANAGERS AND TOP EXECUTIVES	140	1.66	23
ALL OTHER MANAGERS AND ADMINISTRATORS	160	1.90	N/A
PROFESSIONAL, PARAPROFESSIONAL, TECH OCCUPATION	3,170	37.60	N/A
ALL OTHER FINANCIAL SPECIALISTS	20	0.24	N/A
PURCH AGENTS EXCEPT WHOLESALE, RETAIL & FARM	10	0.12	45
EMPLOYMENT INTERVIEWERS, PRIVATE OR PUBLIC	30	0.36	45
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.12	47
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.12	N/A
PSYCHOLOGISTS	20	0.24	N/A
ALL OTHER SOCIAL SCIENTISTS	580	6.88	N/A
SOCIAL WORKERS, EXCEPT MEDICAL & PSYCHIATRIC	560	6.64	28
RECREATION WORKERS	210	2.49	35
DIRECTORS, RELIGIOUS ACTIVITIES & EDUCATION	10	0.12	35
TEACHERS, ELEMENTARY SCHOOL	20	0.24	46
ALL OTHER TEACHERS AND INSTRUCTORS	660	7.83	N/A
PHYSICAL THERAPISTS	10	0.12	33
RECREATIONAL THERAPISTS	20	0.24	35
ALL OTHER THERAPISTS	20	0.24	N/A
REGISTERED NURSES	250	2.97	17
DIETITIANS AND NUTRITIONISTS	10	0.12	22
MEDICAL RECORDS TECHNICIANS AND TECHNOLOGISTS	10	0.12	34
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	620	7.35	N/A
ALL OTHER PROFESSIONAL, PARAPROF., &TECHNICAL	100	1.19	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	830	9.85	N/A
TEACHER AIDES & EDUCATIONAL ASSIST, CLERICAL	100	1.19	43
SECRETARIES	200	2.37	20
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	130	1.54	28
PAYROLL AND TIMEKEEPING CLERKS	10	0.12	26
GENERAL OFFICE CLERKS	120	1.42	44
SWITCHBOARD OPERATORS	20	0.24	31
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	250	2.97	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
RESIDENTIAL CARE
SIC = 836
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SERVICE OCCUPATIONS	3,600	42.70	N/A
HOUSEKEEPERS	160	1.90	39
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	20	0.24	N/A
GUARDS AND WATCH GUARDS	30	0.36	N/A
WAITERS AND WAITRESSES	350	4.15	47
DINING ROOM, CAFETERIA ATTENDANTS,BAR HELPERS	130	1.54	N/A
COOKS, INSTITUTION OR CAFETERIA	250	2.97	27
FOOD PREPARATION WORKERS	310	3.68	35
ALL OTHER FOOD SERVICE WORKERS	60	0.71	41
NURSING AIDES, ORDERLIES, AND ATTENDANTS	1,260	14.95	22
ALL OTHER HEALTH SERVICE WORKERS	20	0.24	N/A
MAIDS AND HOUSEKEEPING CLEANERS	180	2.14	50
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	210	2.49	32
CHILD CARE WORKERS	480	5.69	30
ALL OTHER SERVICE WORKERS	140	1.66	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	300	3.56	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	100	1.19	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.12	33
MAINTENANCE REPAIRERS, GENERAL UTILITY	110	1.30	38
ALL OTHER MACHINE OPERATORS AND TENDERS	70	0.83	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.12	38

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
SOCIAL SERVICES N E C
SIC = 839
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	9,820	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	850	8.66	N/A
FINANCIAL MANAGERS	100	1.02	38
GENERAL MANAGERS AND TOP EXECUTIVES	320	3.26	26
ALL OTHER MANAGERS AND ADMINISTRATORS	440	4.48	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	3,820	38.90	N/A
ACCOUNTANTS AND AUDITORS	60	0.61	43
ALL OTHER FINANCIAL SPECIALISTS	10	0.10	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	300	3.05	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	20	0.20	N/A
ALL OTHER SOCIAL SCIENTISTS	1,920	19.55	N/A
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	10	0.10	N/A
ALL OTHER TEACHERS AND INSTRUCTORS	1,080	11.00	N/A
ALL OTHER THERAPISTS	50	0.51	N/A
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	320	3.26	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	50	0.51	N/A
SALES AND RELATED OCCUPATIONS	390	3.97	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,930	19.65	N/A
SECRETARIES	530	5.40	48
TYPISTS	70	0.71	43
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	180	1.83	27
ALL OTHER OFFICE MACHINE OPERATORS	30	0.31	N/A
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.10	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	1,110	11.30	N/A
SERVICE OCCUPATIONS	2,380	24.24	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	110	1.12	N/A
COOKS, INSTITUTION OR CAFETERIA	170	1.73	34
ALL OTHER FOOD SERVICE WORKERS	320	3.26	N/A
ALL OTHER HEALTH SERVICE WORKERS	570	5.80	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	160	1.63	42
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.10	N/A
ALL OTHER SERVICE WORKERS	1,050	10.69	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	460	4.68	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	10	0.10	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	20	0.20	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	80	0.81	N/A
ELECTRICIANS	10	0.10	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	20	0.20	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	230	2.34	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	110	1.12	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Museums, Art Galleries, Botanical and Zoological Gardens (SIC 84)

This major group includes museums, art galleries, and botanical and zoological gardens, which are not operated commercially. Receipts or funding of these establishments are not primarily from admission charges. These establishments are of historical, educational or cultural interest. The firms in this industry can be divided into the following groups:

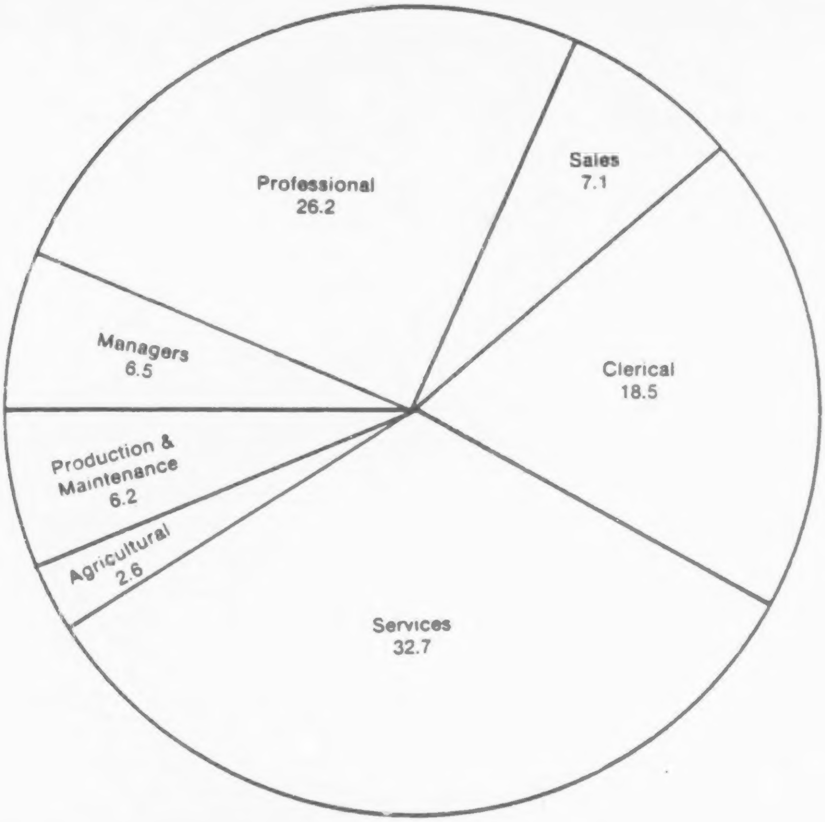
Museums and Art Galleries (SIC 841)
Arboreta, Botanical, and Zoological Gardens (SIC 842)

Employment in this industry reached 3,200 jobs in 1984, an increase of 400 jobs or 14.3 percent since the 1981 survey. Although employment in this industry is relatively small, its contribution to the Massachusetts economy is abundant. The asset of this industry has been an important factor in attracting many thousands of visitors to the state with resultant benefits to all tourist related businesses such as hotels, restaurants, shops, and numerous other establishments.

The occupational structure of this industry is largely comprised within the professional, paraprofessional, and technical category, 26.2 percent, and the service category, 32.7 percent. Consequently, four out of the top five occupations ranked by employment are within these two categories: guides (13.9 percent), guards and watchguards (13.3 percent), teachers and instructors (12.0 percent), and curators, archivists, museum technicians (7.1 percent).

MUSEUMS, BOTANICAL, ZOOLOGICAL GARDENS (SIC 84)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Guides	430
2.	Guards and Watch Guards	410
3.	All Other Teachers and Instructors	370
4.	Secretaries	280
5.	Curators, Archivists, Museums, Technicians & Restorers	220
6.	Cashiers	190
7.	Janitors, Cleaners, Except Maids, House Cleaners	90
8.	General Managers and Top Executives	80
9.	All Other Professional, Paraprofessional and Technical	80
10.	Supervisor & Manager/Supervisor-Clerical/Administrative Support	70

These 10 occupational categories make up 71.9% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
MUSEUMS, BOTANICAL, ZOOLOGICAL GARDENS
SIC = 84
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	3,090	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	200	6.47	N/A
FINANCIAL MANAGERS	20	0.65	20
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.32	24
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	30	0.97	23
GENERAL MANAGERS AND TOP EXECUTIVES	80	2.59	15
ALL OTHER MANAGERS AND ADMINISTRATORS	60	1.94	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	810	26.21	N/A
ACCOUNTANTS AND AUDITORS	10	0.32	16
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.32	40
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	0	0.00	43
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.65	N/A
LIFE SCIENTISTS	10	0.32	33
COMPUTER PROGRAMMER AIDES	10	0.32	29
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.32	N/A
ALL OTHER TEACHERS AND INSTRUCTORS	370	11.97	N/A
LIBRARIANS, PROFESSIONAL	20	0.65	23
TECHNICAL ASSISTANTS, LIBRARY	10	0.32	29
CURATORS, ARCHIVISTS, MUSEUM TECH & RESTORERS	220	7.12	20
WRITERS AND EDITORS	10	0.32	N/A
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	20	0.65	41
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.32	21
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	80	2.59	N/A
SALES AND RELATED OCCUPATIONS	220	7.12	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	20	0.65	32
CASHIERS	190	6.15	17
ALL OTHER SALES AND RELATED WORKERS	10	0.32	44
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	570	18.45	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	70	2.27	20
LIBRARY ASSISTANTS AND BOOKMOBILE DRIVERS	10	0.32	24
SECRETARIES	280	9.06	28
RECEPTIONIST AND INFORMATION CLERKS	40	1.29	28
TYPISTS	20	0.65	26
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.32	41
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	0	0.00	43
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	50	1.62	15
GENERAL OFFICE CLERKS	10	0.32	41
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.32	41
SWITCHBOARD OPERATORS	10	0.32	29
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	20	0.65	40

---

[1] - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MUSEUMS, BOTANICAL, ZOOLOGICAL GARDENS
SIC = 84
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.32	47
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	40	1.29	N/A
SERVICE OCCUPATIONS	1,010	32.69	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	20	0.65	33
GUARDS AND WATCH GUARDS	410	13.27	23
ALL OTHER FOOD SERVICE WORKERS	30	0.97	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	90	2.91	31
GUIDES	430	13.92	28
ALL OTHER SERVICE WORKERS	40	1.29	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	80	2.59	N/A
GARDENERS AND GROUNDSKEEPERS, EXCEPT FARM	60	1.94	31
ANIMAL CARETAKERS, EXCEPT FARM	20	0.65	31
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	190	6.15	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	20	0.65	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	60	1.94	17
CARPENTERS	30	0.97	20
ELECTRICIANS	10	0.32	40
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	10	0.32	25
ALL OTHER EXTRACTIVE WORKERS, EXCEPT HELPERS	40	1.29	N/A
STATIONARY ENGINEERS	10	0.32	55
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	20	0.65	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MUSEUMS AND ART GALLERIES
SIC = 841
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,860	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	170	5.94	N/A
FINANCIAL MANAGERS	20	0.70	23
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	20	0.70	28
GENERAL MANAGERS AND TOP EXECUTIVES	70	2.45	18
ALL OTHER MANAGERS AND ADMINISTRATORS	60	2.10	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	770	26.92	N/A
ACCOUNTANTS AND AUDITORS	10	0.35	17
ALL OTHER MANAGEMENT SUPPORT WORKERS	30	1.05	N/A
COMPUTER PROGRAMMERS	10	0.35	N/A
COMPUTER PROGRAMMER AIDES	10	0.35	29
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.35	N/A
ALL OTHER TEACHERS AND INSTRUCTORS	360	12.59	N/A
LIBRARIANS, PROFESSIONAL	20	0.70	23
TECHNICAL ASSISTANTS, LIBRARY	10	0.35	29
CURATORS, ARCHIVISTS, MUSEUM TECH & RESTORERS	220	7.69	21
WRITERS AND EDITORS	10	0.35	N/A
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	10	0.35	50
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.35	26
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	80	2.80	N/A
SALES AND RELATED OCCUPATIONS	210	7.34	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	20	0.70	35
CASHIERS	180	6.29	17
ALL OTHER SALES AND RELATED WORKERS	10	0.35	44
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	540	18.88	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	60	2.10	23
LIBRARY ASSISTANTS AND BOOKMOBILE DRIVERS	10	0.35	24
SECRETARIES	280	9.79	28
RECEPTIONIST AND INFORMATION CLERKS	30	1.05	31
TYPISTS	20	0.70	26
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.35	41
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	50	1.75	16
GENERAL OFFICE CLERKS	10	0.35	41
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.35	41
SWITCHBOARD OPERATORS	10	0.35	34
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	20	0.70	40
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.35	47
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	40	1.40	N/A
SERVICE OCCUPATIONS	960	33.57	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	20	0.70	40

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MUSEUMS AND ART GALLERIES
SIC = 841
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
GUARDS AND WATCH GUARDS	400	13.99	24
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	70	2.45	38
GUIDES	430	15.03	28
ALL OTHER SERVICE WORKERS	50	1.75	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	160	5.59	N/A
SUPERVISORS-CONSTRUCTION & EXTRACTIVE WORKERS	10	0.35	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	50	1.75	22
CARPENTERS	30	1.05	21
ELECTRICIANS	10	0.35	47
ALL OTHER CONSTRUCTION TRADES WORKERS	50	1.75	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	20	0.70	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Membership Organizations (SIC 86)

This industry includes organizations operating on a membership basis for the promotion of the interest of the members. The firms in this industry can be divided into the following groups:

Business Associations (SIC 861)

Professional Membership Organizations (SIC 862)

Labor Unions and Similar Organizations (SIC 863)

Civic, Social, and Fraternal Organizations (SIC 864)

Political Organizations (SIC 865)

Religious Organizations (SIC 866)

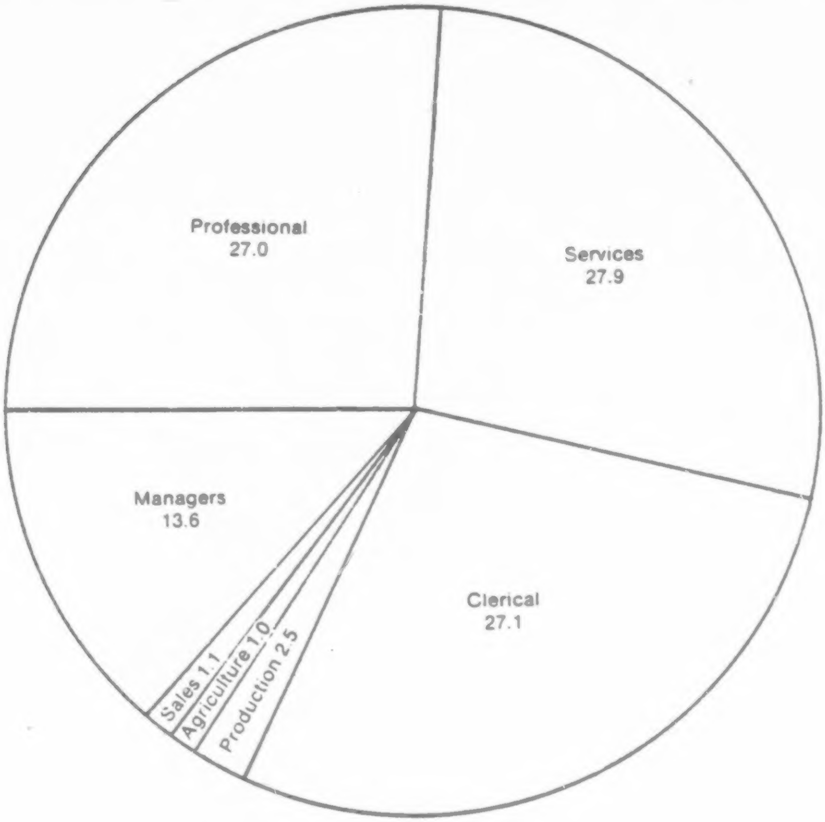
Membership Organizations, Not Elsewhere Classified (SIC 869)

Employment in this industry grew only slightly since 1981, 3.1 percent, an increase of 550 jobs. The industrial groups within the membership organization industry are as diverse as the population itself. The highest concentration of employment is in civic, social, and fraternal associations, 59 percent. (Over 95 percent of employment in religious organizations is exempt from coverage under the Massachusetts Employment Security Law.)

The occupational structure of membership organizations is predominantly within three occupational categories; professional, paraprofessional, technical workers, 27.0 percent, service workers, 27.9 percent, and clerical 27.1 percent.

MEMBERSHIP ORGANIZATIONS (SIC 86)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Bartenders	2,300
2.	Secretaries	1,280
3.	Recreation Workers	1,260
4.	Waiters	1,010
5.	All Other Professional, Paraprofessional, and Technical	850
6.	General Managers and Top Executives	810
7.	Financial Managers	780
8.	All Other Clerical and Administrative Support Workers	750
9.	Bookkeeping, Accounting, And Auditing Clerks	730
10.	General Office Clerks	730

These 10 occupational categories make up 57.0% of total industry employment.

# TABLE
# OCCUPATIONS OF EMPLOYEES
# MEMBERSHIP ORGANIZATIONS
SIC = 86
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	18,420	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	2,500	13.57	N/A
FINANCIAL MANAGERS	780	4.23	23
PERSONNEL, TRAINING, AND LABOR RELATIONS MGRS.	50	0.27	42
PURCHASING MANAGERS	10	0.05	40
MARKETING, ADVERTISING, PUBLIC RELATIONS MGRS.	40	0.22	46
ADMINISTRATIVE SERVICES MANAGERS	280	1.52	32
FOOD SERVICE AND LODGING MANAGERS	20	0.11	31
GENERAL MANAGERS AND TOP EXECUTIVES	810	4.40	26
ALL OTHER MANAGERS AND ADMINISTRATORS	510	2.77	N/A
PROFESSIONAL, PARAPROFESSIONAL, TECH OCCUPATION	4,970	26.98	N/A
ALL OTHER FINANCIAL SPECIALISTS	180	0.98	N/A
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	450	2.44	43
ALL OTHER MANAGEMENT SUPPORT WORKERS	300	1.63	N/A
ALL OTHER ENGINEERS	10	0.05	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.05	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	70	0.38	N/A
ALL OTHER SOCIAL SCIENTISTS	210	1.14	N/A
SOCIAL WORKERS, MEDICAL & PSYCHIATRIC	30	0.16	23
SOCIAL SERVICE TECHNICIANS	50	0.27	27
RECREATION WORKERS	1,260	6.84	11
DIRECTORS, RELIGIOUS ACTIVITIES & EDUCATION	60	0.33	43
LAWYERS	80	0.43	43
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	10	0.05	N/A
TEACHERS, PRESCHOOL AND KINDERGARTEN	220	1.19	37
INSTRUCTORS, NONVOCATIONAL EDUCATION	240	1.30	29
INSTRUCTORS & COACHES, SPORTS & PHYSICAL TRNG	320	1.74	23
ALL OTHER TEACHERS AND INSTRUCTORS	260	1.41	N/A
VOCATIONAL AND EDUCATIONAL COUNSELORS	20	0.11	35
INSTRUCTIONAL COORDINATORS	10	0.05	43
ALL OTHER HEALTH DIAGNOSING & TREATING PRACT.	180	0.98	N/A
PHYSICAL THERAPISTS	20	0.11	6
RECREATIONAL THERAPISTS	20	0.11	12
REGISTERED NURSES	20	0.11	38
LICENSED PRACTICAL NURSES	10	0.05	28
DIETITIANS AND NUTRITIONISTS	20	0.11	41
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	30	0.16	N/A
WRITERS AND EDITORS	60	0.33	29
ALL OTHER PROFESSIONAL, PARAPROF., &TECHNICAL	850	4.61	N/A
SALES AND RELATED OCCUPATIONS	210	1.14	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MEMBERSHIP ORGANIZATIONS
SIC = 86
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	60	0.33	N/A
CASHIERS	50	0.27	42
ALL OTHER SALES AND RELATED WORKERS	90	0.49	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	5,000	27.14	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	210	1.14	35
TEACHER AIDES & EDUCATIONAL ASSIST, CLERICAL	170	0.92	39
SECRETARIES	1,280	6.95	11
STENOGRAPHERS	60	0.33	49
RECEPTIONIST AND INFORMATION CLERKS	540	2.93	26
TYPISTS	170	0.92	37
TYPISTS, WORD PROCESSING EQUIPMENT	50	0.27	42
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	730	3.96	13
PAYROLL AND TIMEKEEPING CLERKS	100	0.54	47
GENERAL OFFICE CLERKS	730	3.96	27
ALL OTHER OFFICE MACHINE OPERATORS	90	0.49	N/A
SWITCHBOARD OPERATORS	110	0.60	24
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.05	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	750	4.07	N/A
SERVICE OCCUPATIONS	5,130	27.85	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	90	0.49	N/A
ALL OTHER PROTECTIVE SERVICE WORKERS	100	0.54	N/A
HOSTS,HOSTESSES-RESTAURANT,LOUNGE,COFFEE SHOP	30	0.16	50
BARTENDERS	2,300	12.49	14
WAITERS AND WAITRESSES	1,010	5.48	29
DINING ROOM, CAFETERIA ATTENDANTS,BAR HELPERS	80	0.43	34
COOKS, RESTAURANT	160	0.87	32
COOKS, INSTITUTION OR CAFETERIA	60	0.33	43
FOOD PREPARATION WORKERS	200	1.09	27
ALL OTHER FOOD SERVICE WORKERS	30	0.16	N/A
ALL OTHER HEALTH SERVICE WORKERS	20	0.11	N/A
MAIDS AND HOUSEKEEPING CLEANERS	90	0.49	18

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MEMBERSHIP ORGANIZATIONS
SIC = 86
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	690	3.75	13
CHILD CARE WORKERS	90	0.49	34
ALL OTHER SERVICE WORKERS	190	1.03	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	170	0.92	N/A
ALL OTHER AGRIC,FOR,FISH, & RELATED WORKERS	170	0.92	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	460	2.50	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	140	0.76	39
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.05	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	190	1.03	32
CARPENTERS	10	0.05	46
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.05	N/A
ALL OTHER EXTRACTIVE WORKERS, EXCEPT HELPERS	10	0.05	N/A
LAUNDRY,DRYCLEANING MACH OPER,TEND,EXC PRESS	20	0.11	N/A
BUS DRIVERS, SCHOOL	30	0.16	37
ALL OTHER MOTOR VEHICLE OPERATORS	40	0.22	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	10	0.05	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
BUSINESS ASSOCIATIONS
SIC = 861
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,480	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	270	18.24	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	120	8.11	38
ALL OTHER MANAGERS AND ADMINISTRATORS	150	10.14	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	470	31.76	N/A
ALL OTHER FINANCIAL SPECIALISTS	120	8.11	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	160	10.81	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	1.35	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	10	0.68	N/A
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	40	2.70	N/A
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	90	6.08	49
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	50	3.38	N/A
SALES AND RELATED OCCUPATIONS	20	1.35	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	680	45.95	N/A
SECRETARIES	270	18.24	19
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	150	10.14	31
ALL OTHER OFFICE MACHINE OPERATORS	20	1.35	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	250	16.89	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	50	3.38	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	40	2.70	N/A
ALL OTHER HAND WORKERS	10	0.68	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
CIVIC AND SOCIAL ASSOCIATIONS
SIC = 864
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	11,090	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	810	7.30	N/A
FINANCIAL MANAGERS	330	2.98	19
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.18	14
PURCHASING MANAGERS	10	0.09	47
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.09	31
ADMINISTRATIVE SERVICES MANAGERS	160	1.44	41
FOOD SERVICE AND LODGING MANAGERS	20	0.18	31
GENERAL MANAGERS AND TOP EXECUTIVES	190	1.71	33
ALL OTHER MANAGERS AND ADMINISTRATORS	90	0.81	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	2,930	26.42	N/A
ACCOUNTANTS AND AUDITORS	50	0.45	41
ALL OTHER MANAGEMENT SUPPORT WORKERS	80	0.72	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	50	0.45	N/A
ALL OTHER SOCIAL SCIENTISTS	200	1.80	N/A
SOCIAL WORKERS, MEDICAL & PSYCHIATRIC	30	0.27	23
SOCIAL SERVICE TECHNICIANS	50	0.45	27
RECREATION WORKERS	1,260	11.36	11
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	20	0.18	N/A
TEACHERS, PRESCHOOL AND KINDERGARTEN	220	1.98	37
INSTRUCTORS, NONVOCATIONAL EDUCATION	200	1.80	27
INSTRUCTORS & COACHES,SPORTS & PHYSICAL TRNG	320	2.89	23
ALL OTHER TEACHERS AND INSTRUCTORS	210	1.89	N/A
VOCATIONAL AND EDUCATIONAL COUNSELORS	20	0.18	35
INSTRUCTIONAL COORDINATORS	10	0.09	43
PHYSICAL THERAPISTS	20	0.18	6
RECREATIONAL THERAPISTS	20	0.18	12
REGISTERED NURSES	20	0.18	38
LICENSED PRACTICAL NURSES	10	0.09	28
DIETITIANS AND NUTRITIONISTS	20	0.18	41
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	20	0.18	N/A
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	50	0.45	44
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	90	0.81	25
SALES AND RELATED OCCUPATIONS	60	0.54	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	10	0.09	46
CASHIERS	40	0.36	17
ALL OTHER SALES AND RELATED WORKERS	10	0.09	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	2,050	18.49	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	90	0.81	29
TEACHER AIDES & EDUCATIONAL ASSIST, CLERICAL	170	1.53	39

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
CIVIC AND SOCIAL ASSOCIATIONS
SIC = 864
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SECRETARIES	420	3.79	18
STENOGRAPHERS	10	0.09	39
RECEPTIONIST AND INFORMATION CLERKS	300	2.71	24
TYPISTS	70	0.63	46
TYPISTS, WORD PROCESSING EQUIPMENT	20	0.18	45
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	380	3.43	16
GENERAL OFFICE CLERKS	190	1.71	30
MAIL MACH. OPERATORS, PREPARATION & HANDLING	10	0.09	47
ALL OTHER OFFICE MACHINE OPERATORS	10	0.09	N/A
SWITCHBOARD OPERATORS	80	0.72	24
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	10	0.09	48
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	290	2.61	N/A
SERVICE OCCUPATIONS	4,860	43.82	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	90	0.81	N/A
HOSTS,HOSTESSES-RESTAURANT,LOUNGE,COFFEE SHOP	30	0.27	50
BARTENDERS	2,280	20.56	14
WAITERS AND WAITRESSES	930	8.39	31
DINING ROOM, CAFETERIA ATTENDANTS,BAR HELPERS	80	0.72	34
COOKS, RESTAURANT	120	1.08	32
COOKS, INSTITUTION OR CAFETERIA	50	0.45	45
FOOD PREPARATION WORKERS	140	1.26	27
ALL OTHER FOOD SERVICE WORKERS	30	0.27	N/A
NURSING AIDES, ORDERLIES, AND ATTENDANTS	10	0.09	N/A
MAIDS AND HOUSEKEEPING CLEANERS	80	0.72	16
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	630	5.68	12
CHILD CARE WORKERS	90	0.81	34
ALL OTHER SERVICE WORKERS	330	2.98	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	380	3.43	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	80	0.72	47
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.09	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	170	1.53	32
CARPENTERS	10	0.09	46
ALL OTHER CONSTRUCTION TRADES WORKERS	20	0.18	N/A
LAUNDRY,DRYCLEANING MACH OPER,TEND,EXC PRESS	20	0.18	N/A
BUS DRIVERS, SCHOOL	30	0.27	37
ALL OTHER MOTOR VEHICLE OPERATORS	30	0.27	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MEMBERSHIP ORGANIZATIONS N E C
SIC = 869
REFERENCE DATE APRIL, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,150	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	170	14.78	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	100	8.70	N/A
SALES AND RELATED OCCUPATIONS	110	9.57	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	620	53.91	N/A
SERVICE OCCUPATIONS	110	9.57	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	40	3.48	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Miscellaneous Services (SIC 89)

This industry includes noncommercial and commercial establishments primarily engaged in performing services in business, educational, scientific, and research activities. The firms in this industry can be divided into the following groups:

Engineering, Architectural, and Surveying Services (SIC 891)
Noncommercial Educational, Scientific, and Research Organizations (SIC 892)
Accounting, Auditing, and Bookkeeping Services (SIC 893)
Services, Not Elsewhere Classified (SIC 899)

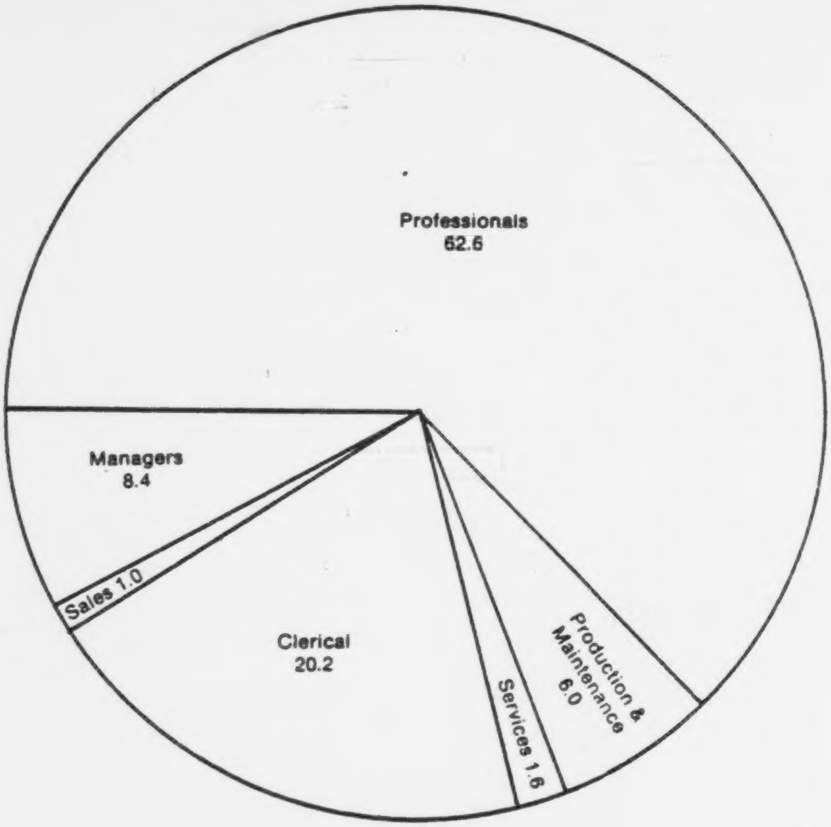
The miscellaneous service industry is comprised of some of Massachusetts' fastest growing industrial groups. Since the last survey conducted in 1981, the miscellaneous service industry grew 10.1 percent, or 4,200 workers, reaching an employment level of 45,600 in 1984.

	Employment		Percent
SIC	1984	1981	Change
89	45,600	41.400	10.1
891	23,250	22,250	4.5
892	10,700	9,450	13.2
893	10,850	9,100	19.2
899	800	600	33.3

The occupational structure of miscellaneous services is dominated by the professional, paraprofesional, technical category. Nearly, two out of every three workers are in this category (62.6 percent).

MISCELLANEOUS SERVICES (SIC 89)

DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORY



RANKED OCCUPATIONAL EMPLOYMENT

1.	Accountants and Auditors	5,320
2.	Secretaries	3,100
3.	Electrical and Electronic Engineers	2,790
4.	Civil Engineers, Including Traffic	2,750
5.	Drafters	2,640
6.	All Other Engineers	2,360
7.	General Managers and Top Executives	1,740
8.	Architects, Except Landscape and Marine	1,510
9.	Bookkeeping, Accounting, and Auditing Clerks	1,190
10.	All Other Engineers and Related Technicians and Technologists	1,150

These 10 occupational categories make up 53.9% of total industry employment.

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS SERVICES
SIC = 89
REFERENCE DATE JUNE, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	45,510	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	3,810	8.37	N/A
FINANCIAL MANAGERS	650	1.43	27
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	120	0.26	23
ADMINISTRATIVE SERVICES MANAGERS	260	0.57	44
CONSTRUCTION MANAGERS	90	0.20	19
GENERAL MANAGERS AND TOP EXECUTIVES	1,740	3.82	15
ALL OTHER MANAGERS AND ADMINISTRATORS	940	2.07	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	28,480	62.58	N/A
TAX PREPARERS	610	1.34	34
ACCOUNTANTS AND AUDITORS	5,320	11.69	13
BUDGET ANALYSTS	40	0.09	42
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	110	0.24	45
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	70	0.15	18
COST ESTIMATORS	370	0.81	39
ALL OTHER MANAGEMENT SUPPORT WORKERS	500	1.10	N/A
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	100	0.22	50
CHEMICAL ENGINEERS	20	0.04	40
CIVIL ENGINEERS, INCLUDING TRAFFIC	2,750	6.04	24
ELECTRICAL AND ELECTRONIC ENGINEERS	2,790	6.13	16
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	80	0.18	40
MECHANICAL ENGINEERS	980	2.15	30
ALL OTHER ENGINEERS	2,360	5.19	N/A
ARCHITECTS, EXCEPT LANDSCAPE AND MARINE	1,510	3.32	31
CIVIL ENGINEERING TECHNICIAN AND TECHNOLOGIST	480	1.05	27
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	650	1.43	16
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	100	0.22	28
DRAFTERS	2,640	5.80	13
SURVEYING & MAPPING TECHNICIANS & TECHNOL.	180	0.40	47
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	1,150	2.53	N/A
PHYSICISTS AND ASTRONOMERS	200	0.44	33
GEOLOGISTS, GEOPHYSICISTS, & OCEANOGRAPHERS	230	0.51	22
ALL OTHER PHYSICAL SCIENTISTS	330	0.73	N/A
ALL OTHER LIFE SCIENTISTS	490	1.08	N/A
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	670	1.47	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	500	1.10	23
COMPUTER PROGRAMMERS	400	0.88	22
COMPUTER PROGRAMMER AIDES	130	0.29	34
PROGRAMMERS-NUMERICAL, TOOL & PROCESS CONTROL	20	0.04	30
OPER & SYS RESEARCHERS & ANALYST,EXC COMMUNI	60	0.13	35

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS SERVICES
SIC = 89
REFERENCE DATE JUNE, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER MATHEMATICAL SCIENTISTS	410	0.90	N/A
ECONOMISTS, INCLUDING MARKET RESEARCH ANALYSTS	10	0.02	27
ALL OTHER SOCIAL SCIENTISTS	30	0.07	N/A
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	40	0.09	N/A
ALL OTHER TEACHERS AND INSTRUCTORS	950	2.09	N/A
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	20	0.04	N/A
DESIGNERS, EXCEPT INTERIOR DESIGNERS	190	0.42	26
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	1,020	2.24	N/A
SALES AND RELATED OCCUPATIONS	420	0.92	N/A
ALL OTHER SALES REPS & SALESPERSONS, SERVICE	130	0.29	N/A
ALL OTHER SALES AND RELATED WORKERS	290	0.64	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	9,200	20.22	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	230	0.51	37
PROOFREADERS AND COPY MARKERS	50	0.11	20
SECRETARIES	3,100	6.81	10
RECEPTIONIST AND INFORMATION CLERKS	360	0.79	40
TYPISTS	390	0.86	37
TYPISTS, WORD PROCESSING EQUIPMENT	660	1.45	18
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	40	0.09	27
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	1,190	2.61	34
PAYROLL AND TIMEKEEPING CLERKS	150	0.33	29
GENERAL OFFICE CLERKS	990	2.18	17
DUPLICATING MACHINE OPERATORS	210	0.46	12
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	220	0.48	37
PERIPHERAL EDP EQUIPMENT OPERATORS	20	0.04	27
DATA ENTRY KEYERS, EXCEPT COMPOSING	210	0.46	50
ALL OTHER OFFICE MACHINE OPERATORS	20	0.04	N/A
SWITCHBOARD OPERATORS	100	0.22	31
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	70	0.15	40
MESSENGERS	90	0.20	28
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	60	0.13	47
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	120	0.26	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	940	2.07	N/A
SERVICE OCCUPATIONS	710	1.56	N/A
ALL OTHER SERVICE SUPERVISORS & MGR/SUPVS	60	0.13	N/A
GUARDS AND WATCH GUARDS	110	0.24	50

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS SERVICES
SIC = 89
REFERENCE DATE JUNE, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER FOOD SERVICE WORKERS	40	0.09	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	250	0.55	45
ALL OTHER SERVICE WORKERS	250	0.55	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	180	0.40	N/A
ALL OTHER AGRIC,FOR,FISH, & RELATED WORKERS	180	0.40	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,730	6.00	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	110	0.24	42
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	90	0.20	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	140	0.31	48
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	300	0.66	49
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	140	0.31	N/A
CARPENTERS	100	0.22	44
ELECTRICIANS	100	0.22	36
ALL OTHER EXTRACTIVE WORKERS, EXCEPT HELPERS	340	0.75	N/A
ALL OTHER PRECISION WORKERS	310	0.68	N/A
MACHINE SETTER,SET-UP OPERATOR, OPER & TENDER	20	0.04	48
WELDERS AND CUTTERS	140	0.31	47
ALL OTHER HAND WORKERS	100	0.22	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	90	0.20	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	250	0.55	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	450	0.99	48

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# ENGINEERING AND ARCHITECTURAL SERVICES
SIC = 891
REFERENCE DATE JUNE, 1984

OCCUPATIONAL TITLE	EMPLOYMENT NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	23,370	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,850	7.92	N/A
FINANCIAL MANAGERS	440	1.88	29
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	80	0.34	23
PURCHASING MANAGERS	40	0.17	13
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	60	0.26	21
ADMINISTRATIVE SERVICES MANAGERS	60	0.26	20
CONSTRUCTION MANAGERS	90	0.39	18
GENERAL MANAGERS AND TOP EXECUTIVES	440	1.88	16
ALL OTHER MANAGERS AND ADMINISTRATORS	640	2.74	14
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	14,950	63.97	N/A
ACCOUNTANTS AND AUDITORS	270	1.16	31
BUDGET ANALYSTS	10	0.04	20
ALL OTHER FINANCIAL SPECIALISTS	10	0.04	N/A
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	30	0.13	28
COST ESTIMATORS	370	1.58	39
ALL OTHER MANAGEMENT SUPPORT WORKERS	160	0.68	28
CIVIL ENGINEERS, INCLUDING TRAFFIC	2,740	11.72	24
ELECTRICAL AND ELECTRONIC ENGINEERS	1,160	4.96	30
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	80	0.34	40
SAFETY ENGINEERS, EXCEPT MINING	20	0.09	50
MECHANICAL ENGINEERS	790	3.38	35
ALL OTHER ENGINEERS	1,990	8.52	N/A
ARCHITECTS, EXCEPT LANDSCAPE AND MARINE	1,510	6.46	31
CIVIL ENGINEERING TECHNICIAN AND TECHNOLOGIST	480	2.05	27
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	260	1.11	36
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	30	0.13	25
DRAFTERS	2,560	10.95	13
SURVEYING & MAPPING TECHNICIANS & TECHNOL.	170	0.73	48
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	520	2.23	40
PHYSICISTS AND ASTRONOMERS	10	0.04	24
CHEMISTS, EXCEPT BIOCHEMISTS	50	0.21	42
GEOLOGISTS, GEOPHYSICISTS, & OCEANOGRAPHERS	140	0.60	29
ALL OTHER PHYSICAL SCIENTISTS	80	0.34	21
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	550	2.35	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	100	0.43	18
COMPUTER PROGRAMMERS	110	0.47	13
COMPUTER PROGRAMMER AIDES	50	0.21	16
PROGRAMMERS-NUMERICAL, TOOL & PROCESS CONTROL	20	0.09	30
OPER & SYS RESEARCHERS & ANALYST,EXC COMMUNI	40	0.17	22

---

[1] - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ENGINEERING AND ARCHITECTURAL SERVICES
SIC = 891
REFERENCE DATE JUNE. 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
STATISTICIANS	10	0.04	N/A
ECONOMISTS, INCLUDING MARKET RESEARCH ANALYSTS	10	0.04	35
LAWYERS	20	0.09	21
LIBRARIANS, PROFESSIONAL	30	0.13	37
TECHNICAL ASSISTANTS, LIBRARY	10	0.04	45
REGISTERED NURSES	10	0.04	N/A
WRITERS AND EDITORS	40	0.17	16
TECHNICAL WRITERS	50	0.21	27
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	20	0.09	36
ARTISTS AND RELATED WORKERS	10	0.04	41
DESIGNERS, EXCEPT INTERIOR DESIGNERS	190	0.81	26
ALL OTHER PROFESSIONAL, PARAPROF., &TECHNICAL	270	1.16	N/A
SALES AND RELATED OCCUPATIONS	160	0.68	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	20	0.09	37
ALL OTHER SALES AND RELATED WORKERS	140	0.60	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	4,020	17.20	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	110	0.47	13
LIBRARY ASSISTANTS AND BOOKMOBILE DRIVERS	10	0.04	35
PROOFREADERS AND COPY MARKERS	20	0.09	20
SECRETARIES	980	4.19	14
TYPISTS	180	0.77	40
TYPISTS, WORD PROCESSING EQUIPMENT	350	1.50	13
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.04	36
FILE CLERKS	40	0.17	31
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	10	0.04	27
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	540	2.31	30
PAYROLL AND TIMEKEEPING CLERKS	90	0.39	23
BILLING, COST AND RATE CLERKS	40	0.17	31
GENERAL OFFICE CLERKS	660	2.82	18
DUPLICATING MACHINE OPERATORS	150	0.64	8
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	70	0.30	38
PERIPHERAL EDP EQUIPMENT OPERATORS	10	0.04	N/A
DATA ENTRY KEYERS, EXCEPT COMPOSING	50	0.21	12
SWITCHBOARD OPERATORS	50	0.21	22
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	20	0.09	28
MESSENGERS	80	0.34	30
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	20	0.09	36
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	50	0.21	15
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	470	2.01	N/A
SERVICE OCCUPATIONS	80	0.34	N/A

---

[1] - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ENGINEERING AND ARCHITECTURAL SERVICES
SIC = 891
REFERENCE DATE JUNE, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,300	9.84	N/A
SUPERVISORS-PRODUCTION & OPERATING WORKERS	90	0.39	42
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	60	0.26	N/A
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	430	1.84	49
ELECTRICIANS	70	0.30	49
ALL OTHER CONSTRUCTION TRADES WORKERS	360	1.54	N/A
ALL OTHER EXTRACTIVE WORKERS, EXCEPT HELPERS	40	0.17	48
ALL OTHER PRECISION WORKERS	250	1.07	N/A
MACHINE SETTER,SET-UP OPERATOR, OPER & TENDER	20	0.09	48
WELDERS AND CUTTERS	130	0.56	N/A
ALL OTHER HAND WORKERS	100	0.43	N/A
ALL OTHER MOTOR VEHICLE OPERATORS	80	0.34	N/A
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	240	1.03	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	440	1.88	50

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# NONCOMMERCIAL RESEARCH ORGANIZATIONS
SIC = 892
REFERENCE DATE JUNE, 1984

OCCUPATIONAL TITLE	EMPLOYMENT NUMBER[1]	EMPLOYMENT PERCENT OF TOTAL	EMPLOYMENT RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	10,740	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,050	9.78	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	760	7.08	26
ALL OTHER MANAGERS AND ADMINISTRATORS	290	2.70	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	6,790	63.22	N/A
ALL OTHER FINANCIAL SPECIALISTS	80	0.74	N/A
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	20	0.19	5
MANAGEMENT ANALYSTS	10	0.09	29
ALL OTHER MANAGEMENT SUPPORT WORKERS	140	1.30	N/A
ELECTRICAL AND ELECTRONIC ENGINEERS	1,620	15.08	18
MECHANICAL ENGINEERS	150	1.40	49
ALL OTHER ENGINEERS	490	4.56	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	390	3.63	11
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	60	0.56	41
DRAFTERS	80	0.74	44
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.09	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	220	2.05	49
PHYSICISTS AND ASTRONOMERS	190	1.77	34
GEOLOGISTS, GEOPHYSICISTS, & OCEANOGRAPHERS	90	0.84	33
ALL OTHER PHYSICAL SCIENTISTS	110	1.02	N/A
ALL OTHER LIFE SCIENTISTS	450	4.19	N/A
ALL OTHER PHYSICAL & LIFE SCIENCE TECHNICIANS	560	5.21	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	230	2.14	31
COMPUTER PROGRAMMERS	260	2.42	28
ALL OTHER MATHEMATICAL SCIENTISTS	310	2.89	N/A
MATHEMATICAL TECHNICIANS	30	0.28	36
ALL OTHER SOCIAL SCIENTISTS	10	0.09	N/A
ALL OTHER LEGAL ASSTS. & TECHS., EX. CLERICAL	20	0.19	N/A
ALL OTHER TEACHERS AND INSTRUCTORS	900	8.38	N/A
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	10	0.09	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	380	3.54	N/A
SALES AND RELATED OCCUPATIONS	190	1.77	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,910	17.78	N/A
SECRETARIES	1,090	10.15	18
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	20	0.19	42
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	140	1.30	38
GENERAL OFFICE CLERKS	200	1.86	49
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	40	0.37	36
PERIPHERAL EDP EQUIPMENT OPERATORS	10	0.09	35
ALL OTHER OFFICE MACHINE OPERATORS	60	0.56	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
NONCOMMERCIAL RESEARCH ORGANIZATIONS
SIC = 892
REFERENCE DATE JUNE, 1984

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	90	0.84	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	260	2.42	N/A
SERVICE OCCUPATIONS	370	3.45	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.09	45
GUARDS AND WATCH GUARDS	110	1.02	50
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	170	1.58	48
ALL OTHER SERVICE WORKERS	80	0.74	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	110	1.02	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	320	2.98	N/A
SUPERVISORS-CONSTRUCTION & EXTRACTIVE WORKERS	20	0.19	40
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	30	0.28	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	10	0.09	N/A
ELECTRICIANS	30	0.28	23
ALL OTHER CONSTRUCTION TRADES WORKERS	90	0.84	N/A
MACHINISTS	60	0.56	43
WELDERS AND CUTTERS	10	0.09	20
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	50	0.47	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	10	0.09	33
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	20	0.19	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

53808-2.5-U

COMMONWEALTH OF MASSACHUSETTS

DES

DIVISION OF EMPLOYMENT SECURITY

Michael S. Dukakis, Governor

OCCUPATIONS IN TRADE, TRANSPORTATION, COMMUNICATIONS, AND UTILITIES

1985

Prepared By:
Parker Hastings
Senior Labor Market Economist

Massachusetts Division
of Employment Security
Economic Research & Analysis Service
Elliot A. Winer, Chief
Mary-Ellen Steller, Program Manager
September, 1987

FOREWORD

The Occupational Employment Statistics Program is part of a Federal State cooperative program involving State Employment Security Agencies (SESA's) as well as the U.S. Department of Labor, Bureau of Labor Statistics (BLS). It was designed to meet the needs of economists, employment specialists, educators, counselors and others for current data on employment by occupations as well as projected data on employment by occupation and industry.

This publication is the twenty-second in a series on current Ocupational Profiles of Massachusetts Industries. The information is used in updating the industry-occupation matrix and as a data base for projecting future employment trends. Copies of all previous survey publications are available for reference in our Research Library.

Our sincere appreciation is extended to the many employers who participated in this survey, without whose support this labor market information would not be available. Acknowledgement for support is also made to the U.S. Department of Labor and in particular to the Bureau of Labor Statistics - both on national and regional levels - for their technical support. We also wish to recognize the contribution of the data processing department and the reproduction unit.

Table of Contents

Page

Foreword....................ii

Methodology....................1

Scope of Survey....................3

Local and Interurban Passenger Transit (SIC 41)....................5

- Local and Suburban Transportation (SIC 411)....................9
- Taxicabs (SIC 412)....................11
- Intercity Highway Transportation (SIC 413)....................12
- School Buses (SIC 415)....................13

Trucking and Warehousing (SIC 42)....................14

- Trucking, Local and Long Distance (SIC 421)....................18
- Public Warehousing (SIC 422)....................20

Water Transportation (SIC 44)....................21

- Water Transportation Services (SIC 446)....................25

Transportation by Air (SIC 45)....................26

- Certified Air Transportation (SIC 451)....................30
- Air Transportation Services (SIC 458)....................32

Transportation Services (SIC 47)....................33

- Freight Forwarding (SIC 471)....................37
- Arrangement of Transportation (SIC 472)....................38

Communication (SIC 48)....................40

- Telephone Communication (SIC 481)....................45

Electric, Gas, and Sanitary Services (SIC 49)....................47

- Electric Services (SIC 491)....................53
- Gas Production and Distribution (SIC 492)....................56
- Sanitary Services (SIC 495)....................59

page

Wholesale Trade Durable Goods (SIC 50)........................61

Motor Vehicles and Automotive Equipment (SIC 501).........66

Furniture and Home Furnishings (SIC 502).................68

Lumber and Construction Materials (SIC 503)..............70

Metals and Minerals, except Petroleum (SIC 505)..........72

Electrical Goods (SIC 506)...............................74

Hardware, Plumbing, & Heating Equipment (SIC 507).........76

Machinery, Equipment and Supplies (SIC 508)..............78

Miscellaneous Durable Goods (SIC 509)....................80

Wholesale Trade Nondurable Goods (SIC 51)....................82

Paper and Paper Products (SIC 511).......................88

Drugs, Proprietaries, and Sundries (SIC 512).............90

Groceries and Related Products (SIC 514).................92

Chemical and Allied Products (SIC 516)...................95

Petroleum and Petroleum Products (SIC 517)...............96

Beer, Wine, and Distilled Beverages (SIC 518)............98

Miscellaneous Nondurable Goods (SIC 519).................100

Building Materials & Garden Supplies (SIC 52)................102

Lumber & Other Building Materials (SIC 521)..............106

Paint, Glass, and Wallpaper Stores (SIC 523).............108

Hardware Stores (SIC 525)................................109

Retail Nurseries and Garden Stores (SIC 526).............110

General Merchandise Stores (SIC 53)..........................111

Department Stores (SIC 531)..............................115

Variety Stores (SIC 533).................................117

Miscellaneous General Merchandise Stores (SIC 539).......118

page

Food Stores (SIC 54)..119

Grocery Stores (SIC 541)....................................123

Meat Markets and Freezer Provisioners (SIC 542)...........124

Fruit Stores and Vegetable Markets (SIC 543)..............125

Candy, Nut and Confectionery Stores (SIC 544).............126

Retail Bakeries (SIC 546)...................................127

Miscellaneous Food Stores (SIC 549).......................128

Automotive Dealers & Service Stations (SIC 55)............129

New and Used Car Dealers (SIC 551).........................133

Used Car Dealers (SIC 552)..................................134

Auto and Home Supply Stores (SIC 553)......................135

Gasoline Service Stations (SIC 554)........................136

Boat Dealers (SIC 555)......................................137

Apparel and Accessory Stores (SIC 56).......................138

Mens & Boys Clothing and Furnishings (SIC 561)............142

Women's Ready-to-Wear Stores (SIC 562)....................144

Women's Accessory and Speciality Stores (SIC 563).........145

Family Clothing Stores (SIC 565)...........................146

Shoe Stores (SIC 566).......................................148

Miscellaneous Apparel and Accessories (SIC 569)...........150

Furniture and Home Furnishing Stores (SIC 57)..............152

Furniture & Home Furnishing Stores (SIC 571)..............156

Household Appliance Stores (SIC 572)......................158

Radio, Television, and Miscellaneous Stores (SIC 573).....159

Eating and Drinking Places (SIC 58)........................160

Miscellaneous Retail (SIC 59)...............................163

page

Drug Stores and Proprietary Stores (SIC 591)..............167

Liquor Stores (SIC 592)...................................168

Used Merchandise Stores (SIC 593).........................169

Miscellaneous Shopping Goods Stores (SIC 594).............170

Nonstore Retailers (SIC 596)..............................171

Fuel and Ice Dealers (SIC 598)............................172

Retail Stores N.E.C. (SIC 599)............................173

Methodology

The Sample

The second quarter 1985 report (ES-202) of employment and wages covered by the Massachusetts Employment Security Law was used as a sampling frame for the 1985 Occupational Employment Statistics survey of the balance of nonmanufacturing establishments. The trade and transportation, communications, and utilities sectors are included in this report.

The sampling frame was stratified by three-digit SIC's (Standard Industrial Classification) and by nine employment size classes. Establishments with less than four employees were excluded from the sample and all units with employment of two hundred and fifty or more were automatically included. All other establishments were subject to sample selection on a random basis, with the units in large size classes having a proportionately higher chance of selection. Each unit was given a weight according to the proportion of firms selected in each size class. The 1985 total sample included 5,323 establishments with benchmark employment of 627,076.

The Survey and Responses

Each establishment was mailed a survey schedule; telephone calls and personal visits were made where the data was critical for calculating valid estimates. As many as three follow-up schedules were mailed to nonrespondents. Of the 5323 establishments in this survey, replies were received from 4,742 or 89.1 percent. After manual editing and mechanical (computer) screening, 4,502 responses with total employment of 504,147 were determined useable, 81.48 percent of sample employment.

The Estimating Procedure

All useable responses were stratified into seven size groups, by industry. Reported total employment (or the summed occupational employment) from each useable response was multiplied by the weight assigned during sample selection. The industry data was then divided into the employment in the ES-202 report for the reference month of the survey (stratified by corresponding size class cells). The result produced by the procedure is known as the benchmark factor. This factor was then applied to the occupational data, thus accounting for nonresponse. These occupational estimates were then summed across size classes to the industry totals.

Sampling Error

Sampling error is an arithmetic measure of the precision of the estimate. It is the difference between the estimate computed from the sample and the result that would have been obtained if the same methods were used to collect identical information from the universe. The relative errors listed in this report are the sampling errors of each occupation expressed as a percent of that occupational estimate. The relative errors shown are such that the chances are 2 out of 3 that the result of collecting identical information from the entire population would not differ by more than the percent of relative error shown; the chances are 19 out of 20, that the results of collecting identical information from the entire population would not differ by more than twice the percent shown. For example, it is estimated in this report that there are 5,760 General Managers and Top Executives employed in SIC 50, Wholesale Trade Durable Goods, making up 6.59 percent of total employed in the industry. Thus, the chances are about 68 out of 100 that the results of comparable full scale data collection would differ by less than 345 (6 percent) from the 5,760 estimated; similarly the estimated 6.59 percent of total employment would differ by less than 0.4 percent of total employment.

Nonsampling Error

The results of this survey are subject to biases and other nonsampling errors. Although careful editing and screening steps were taken, some errors in computation and processing may have occurred. These errors could be from faulty schedule design or an inability to collect data as defined. Responding establishments may account for some errors because of inaccuracy of data furnished, such as placing workers in a wrong occupation. The nonrespondents are a source of nonsampling error for which measures are not available but are reflected in the estimating procedure.

Occupational Classification

The new OES occupational classification system was introduced with the 1983 survey and is closely related to the 1980 Standard Occupational Classification system (SOC). Due to the revision of the OES occupational system, the occupations from this 1985 survey cycle are not completely comparable to those from the 1982 survey cycle. In those industries where the new occupational system caused dramatic fluctuations, major occupational categories were combined. This allows the occupational structure of the survey to be comparable to the last survey round.

SCOPE OF SURVEY

This survey covered the following Standard Industrial Classifications as defined in the 1972 Manual. For your convenience, listed below are the two-digit SIC Codes with their short titles.

SIC Code	Short Titles
41	Local & Suburban Transit & Interurban Highway and Passenger Transportation
42	Motor Freight Transportation and Warehousing
44	Water Transportation
45	Transportation by Air
46	Pipeline Transportation
47	Transportation Services
48	Communication
49	Electric, Gas, and Sanitary Services
50	Wholesale Trade - Durable Goods
51	Wholesale Trade - Nondurable Goods
52	Building Materials, Hardware, & Mobile Homes
53	General Merchandise Stores
54	Food Stores
55	Auto Dealers and Gasoline Service Stations
56	Apparel and Accessory Stores
57	Furniture and Home Furnishing Stores
58	Eating and Drinking Places
59	Miscellaneous Retail

Balance of Nonmanufacturing
Employment Trends 1982 - 1985

	Reference Month	1982 1/	1985 2/	Percent Change 1982 - 1985
41	May	16,569	16600	+ 0.2
42	May	25,128	28772	+ 14.5
44	April	2708	3475	+ 28.3
45	June	8943	10361	+ 15.9
46	June 3/	-	-	
47	April	5704	9224	+ 61.7
48	May	37791	34733	- 16.4
49	April	18632	19232	+ 3.2
50	June	73614	87618	+ 19.0
51	June	63253	64983	+ 2.7
52	June	14510	18622	+ 28.3
53	June	53435	61489	+ 15.1
54	June	81253	92464	+ 13.8
55	June	39878	46293	+ 16.1
56	June	35417	41496	+ 17.2
57	June	15470	18601	+ 20.2
58	June	158686	185316	+ 16.8
59	June	64682	77683	+ 20.1
Total		715673	816962	+ 14.2

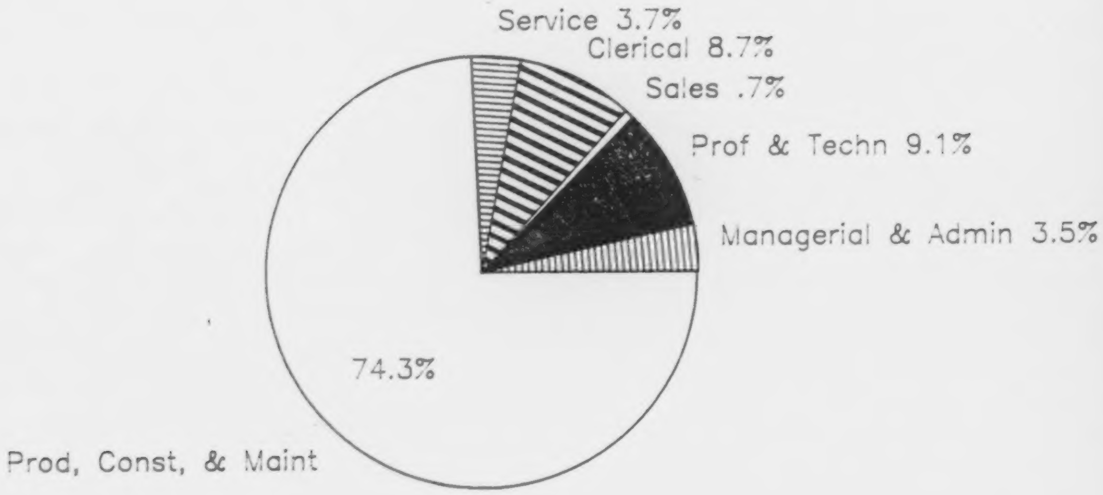
1/ 1982 ES - 202 figures are adjusted where necessary to eliminate the effect of changes due to industry re-coding

2/ 1985 ES 202 figures are revised and thus may differ slightly from those in the occupational tables

3/ Less than 100 employment

Local and Interurban Passenger Transit (SIC 41)

Distribution of Employment by Major Occupation Category



Ranked Occupational Employment

1.	Bus Drivers, School	5430
2.	Bus Drivers	3130
3.	Taxi Drivers and Chauffeurs	2030
4.	Emergency Medical Technicians	1420
5.	Bus, Truck Mechanics, Diesel Engine Specialists	460
6.	Truck Drivers, Heavy or Tractor Trailor	390
7.	Dispatchers - except Police, Fire, and Ambulance	320
8.	General Office Clerks	250
9.	Ambulance Drivers & Attendants, except EMT	250
10.	All Other Service Workers	210

SIC 41

This major group includes establishments primarily engaged in furnishing local and suburban passenger transportation within a single municipality, contiguous municipalities, or a municipality and its suburban area by bus, rail, or subway and establishments engaged in furnishing transportation to local scenic features. Employment increased by only 230, or 0.2 percent, from its 1982 level of 16,570, after experiencing a decline during the 1979 to 1982 survey period. The factors attributable to the decline, consolidation brought on by high operating costs, competition from publicly supplied transportation, drop in gasoline prices and the advent of Proposition 2 1/2 have stablized during the 1982-1985 survey periods.

The taxicab industry, SIC 412, continued to show a decline since the last survey losing nearly 270, or 8.1 percent, with the number of establishments showing a similar percentage reduction from the 312 total in 1982. The small intercity highway transportation industry, SIC 413, had an increase in its employment, while school bus employment, SIC 415, decreased slightly since 1982.

The distribution within major occupational categories shows minor changes. Declines appear in the managerial (- 250) and clerical (-190) occupations and increases in the professional and technical category (+490) largely due to gains in the emergency medical technician occupation.

TABLE
OCCUPATIONS OF EMPLOYEES
LOCAL & INTERURBAN PASSENGER TRANSIT
SIC = 41
REFERENCE DATE MAY, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	16,510	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	580	3.51	N/A
FINANCIAL MANAGERS	50	0.30	14
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.12	10
PURCHASING MANAGERS	10	0.06	21
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.06	10
ADMINISTRATIVE SERVICES MANAGERS	10	0.06	N/A
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	330	2.00	11
GENERAL MANAGERS AND TOP EXECUTIVES	90	0.55	17
ALL OTHER MANAGERS AND ADMINISTRATORS	60	0.36	16
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	1,510	9.15	N/A
ACCOUNTANTS AND AUDITORS	60	0.36	40
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.06	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.06	N/A
EMERGENCY MEDICAL TECHNICIANS	1,420	8.60	7
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	10	0.06	25
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	10	0.06	N/A
SALES AND RELATED OCCUPATIONS	110	0.67	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	20	0.12	15
CASHIERS	30	0.18	34
ALL OTHER SALES AND RELATED WORKERS	50	0.30	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,430	8.66	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	70	0.42	26
RESERVATION & TRANSPORTATION TICKET AGENTS	60	0.36	31
SECRETARIES	170	1.03	18
RECEPTIONIST AND INFORMATION CLERKS	50	0.30	49
TYPISTS	10	0.06	18
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.06	N/A
FILE CLERKS	10	0.06	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	140	0.85	20
PAYROLL AND TIMEKEEPING CLERKS	20	0.12	8
BILLING, COST AND RATE CLERKS	80	0.48	20
GENERAL OFFICE CLERKS	250	1.51	15
BILLING, POSTING, CALCULATING MACH. OPERATORS	10	0.06	18
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.06	17
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.06	12
SWITCHBOARD OPERATORS	60	0.36	16
DISPATCHERS-POLICE, FIRE, AND AMBULANCE	140	0.85	31
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	320	1.94	10
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.06	14

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
LOCAL & INTERURBAN PASSENGER TRANSIT
SIC = 41
REFERENCE DATE MAY, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	0.12	N/A
SERVICE OCCUPATIONS	620	3.76	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.06	28
AMBULANCE DRIVERS & ATTENDANTS, EXCEPT EMT.	250	1.51	13
CLEANING AND BUILDING SERVICE OCCUPATIONS	50	0.30	23
GUIDES	20	0.12	24
BAGGAGE PORTERS AND BELLHOPS	10	0.06	24
TRANSP ATTEND,EXC FLT ATTEND & BAGGAGE PORTER	80	0.48	44
ALL OTHER SERVICE WORKERS	210	1.27	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	12,260	74.26	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	30	0.18	21
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	80	0.48	24
TRANSPORTATION INSPECTORS	10	0.06	8
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	10	0.06	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	80	0.48	29
AUTOMOTIVE MECHANICS	190	1.15	24
AUTOMOTIVE BODY AND RELATED REPAIRERS	30	0.18	34
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	460	2.79	6
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	20	0.12	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	390	2.36	16
BUS DRIVERS	3,130	18.96	11
BUS DRIVERS, SCHOOL	5,430	32.89	6
TAXI DRIVERS AND CHAUFFEURS	2,030	12.30	9
SERVICE STATION ATTENDANTS	50	0.30	35
ALL OTHER TRANSPORTATION AND RELATED WORKERS	180	1.09	N/A
VEHICLE WASHERS AND EQUIPMENT CLEANERS	140	0.85	34
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	20	0.12	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
LOCAL AND SUBURBAN TRANSPORTATION
SIC = 411
REFERENCE DATE MAY, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,340	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	170	3.92	N/A
FINANCIAL MANAGERS	20	0.46	6
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.23	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.23	N/A
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	90	2.07	15
GENERAL MANAGERS AND TOP EXECUTIVES	30	0.69	15
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.23	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	1,440	33.18	N/A
ACCOUNTANTS AND AUDITORS	10	0.23	14
EMERGENCY MEDICAL TECHNICIANS	1,420	32.72	7
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	10	0.23	25
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	10	0.23	N/A
SALES AND RELATED OCCUPATIONS	30	0.69	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	20	0.46	N/A
SALES AGENTS, SELECTED BUSINESS SERVICES	10	0.23	14
CASHIERS	10	0.23	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	440	10.14	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	20	0.46	28
SECRETARIES	60	1.38	20
RECEPTIONIST AND INFORMATION CLERKS	10	0.23	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	20	0.46	13
BILLING, COST AND RATE CLERKS	60	1.38	18
GENERAL OFFICE CLERKS	70	1.61	12
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.23	12
DISPATCHERS-POLICE, FIRE, AND AMBULANCE	90	2.07	9
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	70	1.61	15
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	30	0.69	N/A
SERVICE OCCUPATIONS	360	8.29	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.23	28
AMBULANCE DRIVERS & ATTENDANTS, EXCEPT EMT.	250	5.76	13
CLEANING AND BUILDING SERVICE OCCUPATIONS	10	0.23	N/A
ALL OTHER SERVICE WORKERS	100	2.30	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,900	43.78	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	10	0.23	N/A
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	40	0.92	20
TRANSPORTATION INSPECTORS	10	0.23	N/A
AUTOMOTIVE MECHANICS	20	0.46	29
AUTOMOTIVE BODY AND RELATED REPAIRERS	10	0.23	20
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	100	2.30	8

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
LOCAL AND SUBURBAN TRANSPORTATION
SIC = 411
REFERENCE DATE MAY, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	340	7.83	13
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.23	53
BUS DRIVERS	780	17.97	11
BUS DRIVERS, SCHOOL	360	8.29	2
TAXI DRIVERS AND CHAUFFEURS	180	4.15	29
ALL OTHER TRANSPORTATION AND RELATED WORKERS	10	0.23	N/A
VEHICLE WASHERS AND EQUIPMENT CLEANERS	20	0.46	14

---

[1] - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
TAXICABS
SIC = 412
REFERENCE DATE MAY, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	3,000	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	100	3.33	N/A
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	70	2.33	28
GENERAL MANAGERS AND TOP EXECUTIVES	20	0.67	21
ALL OTHER MANAGERS AND ADMINISTRATORS	20	0.67	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	10	0.33	N/A
SALES AND RELATED OCCUPATIONS	30	1.00	N/A
CASHIERS	30	1.00	40
ALL OTHER SALES AND RELATED WORKERS	10	0.33	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	420	14.00	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	40	1.33	38
GENERAL OFFICE CLERKS	50	1.67	20
SWITCHBOARD OPERATORS	50	1.67	19
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	150	5.00	17
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	130	4.33	N/A
SERVICE OCCUPATIONS	70	2.33	N/A
CLEANING AND BUILDING SERVICE OCCUPATIONS	10	0.33	14
ALL OTHER SERVICE WORKERS	60	2.00	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,370	79.00	N/A
AUTOMOTIVE MECHANICS	150	5.00	29
AUTOMOTIVE BODY AND RELATED REPAIRERS	20	0.67	46
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	10	0.33	22
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	50	1.67	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	60	2.00	50
BUS DRIVERS, SCHOOL	240	8.00	28
TAXI DRIVERS AND CHAUFFEURS	1,680	56.00	9
ALL OTHER TRANSPORTATION AND RELATED WORKERS	140	4.67	N/A
VEHICLE WASHERS AND EQUIPMENT CLEANERS	10	0.33	17
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	10	0.33	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
INTERCITY HIGHWAY TRANSPORTATION
SIC = 413
REFERENCE DATE MAY, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,110	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	30	2.70	N/A
FINANCIAL MANAGERS	10	0.90	20
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	10	0.90	12
GENERAL MANAGERS AND TOP EXECUTIVES	10	0.90	20
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.90	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	10	0.90	N/A
SALES AND RELATED OCCUPATIONS	10	0.90	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	180	16.22	N/A
RESERVATION & TRANSPORTATION TICKET AGENTS	40	3.60	43
SECRETARIES	10	0.90	33
RECEPTIONIST AND INFORMATION CLERKS	10	0.90	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	20	1.80	19
PAYROLL AND TIMEKEEPING CLERKS	10	0.90	N/A
GENERAL OFFICE CLERKS	40	3.60	49
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	30	2.70	13
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	40	3.60	N/A
SERVICE OCCUPATIONS	40	3.60	N/A
GUIDES	20	1.80	26
BAGGAGE PORTERS AND BELLHOPS	10	0.90	24
ALL OTHER SERVICE WORKERS	10	0.90	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	850	76.58	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	10	0.90	38
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	10	0.90	N/A
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	90	8.11	4
BUS DRIVERS	540	48.65	11
ALL OTHER TRANSPORTATION AND RELATED WORKERS	170	15.32	N/A
VEHICLE WASHERS AND EQUIPMENT CLEANERS	40	3.60	38

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
SCHOOL BUSES
SIC = 415
REFERENCE DATE MAY, 1985

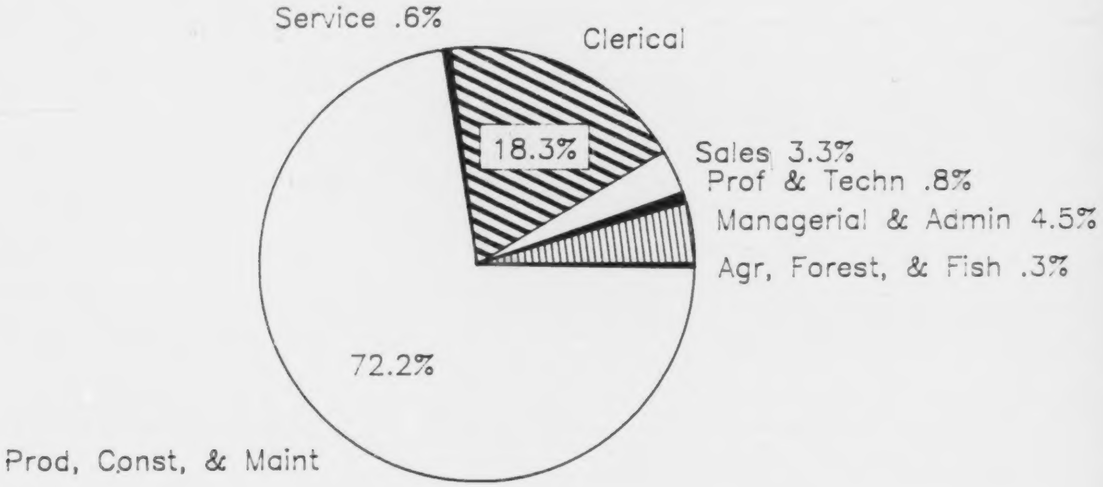
OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	6,530	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	210	3.22	N/A
FINANCIAL MANAGERS	20	0.31	27
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.15	20
PURCHASING MANAGERS	10	0.15	28
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	100	1.53	24
GENERAL MANAGERS AND TOP EXECUTIVES	40	0.61	36
ALL OTHER MANAGERS AND ADMINISTRATORS	40	0.61	23
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	40	0.61	N/A
ALL OTHER FINANCIAL SPECIALISTS	30	0.46	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	10	0.15	N/A
SALES AND RELATED OCCUPATIONS	20	0.31	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	260	3.98	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	20	0.31	27
RESERVATION & TRANSPORTATION TICKET AGENTS	10	0.15	29
SECRETARIES	30	0.46	29
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	50	0.77	39
PAYROLL AND TIMEKEEPING CLERKS	10	0.15	N/A
GENERAL OFFICE CLERKS	60	0.92	36
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	50	0.77	32
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	30	0.46	N/A
SERVICE OCCUPATIONS	140	2.14	N/A
CLEANING AND BUILDING SERVICE OCCUPATIONS	20	0.31	45
TRANSP ATTEND,EXC FLT ATTEND & BAGGAGE PORTER	70	1.07	45
ALL OTHER SERVICE WORKERS	40	0.61	37
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	5,860	89.74	N/A
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	20	0.31	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	50	0.77	34
AUTOMOTIVE MECHANICS	10	0.15	50
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	180	2.76	11
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	10	0.15	N/A
BUS DRIVERS	930	14.24	31
BUS DRIVERS, SCHOOL	4,560	69.83	6
ALL OTHER TRANSPORTATION & MAT'L MOVERS	100	1.53	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Trucking and Warehousing (SIC 42)

Distribution of Employment by Major Occupation Category



Ranked Occupational Employment

1.	Truck Drivers, Heavy or Tractor Trailor	9770
2.	Truck Drivers, Light - Inc Del. & Route Workers	2900
3.	Hand Packers and Packagers	1490
4.	All Other Helpers, Laborers, Mat'l Movers - Hand	1350
5.	Industrial Truck and Tractor Operators	1150
6.	Bus, Truck Mechanics, Diesel Engine Specialists	1010
7.	General Office Clerks	1010
8.	Communications Trans. & Util Operators Mgrs	900
9.	Sales Agents, Selected Business Services	890
10.	Bookkeeping, Accounting, & Auditing Clerks	850

This major group includes establishments furnishing local or long-distance trucking, or transfer services, or those engaged in the storage of farm products, furniture and other household goods, or commercial goods of any nature. The group had an employment increase of 3,640, or about 14 percent, over the 1982 level of 25,130. Local and long-distance trucking, SIC 421, is the dominant industry in the group (90.9 percent) and it was in this industry that most of the increase occurred. The gain may be attributed to the generally favorable economic conditions in the Commonwealth resulting in increased amounts of freight being transported locally and long distance.

The distribution within major occupational categories shows 72 percent of the jobs are in the production, construction and maintenance field, while 18 percent are in the clerical category. The truck driver occupations show employment of 12,670 amounting to over 44 percent of the group total.

The trucking and warehousing group is projected to grow by a moderate 6.9 percent during the 1984 to 1995 period . During the same period a 20 percent gain is projected for the United States as a whole. Among the reasons for this difference are the turmoil caused by deregulation of the trucking industry and the expansion of large carrier distribution networks developing across state lines. Also, the continuing shift in Massachusetts away from a goods producing society will share in checking major growth in this industry.

TABLE
OCCUPATIONS OF EMPLOYEES
TRUCKING AND WAREHOUSING
SIC = 42
REFERENCE DATE MAY, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	28,590	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,290	4.51	N/A
FINANCIAL MANAGERS	50	0.17	23
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.07	17
PURCHASING MANAGERS	10	0.03	29
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	30	0.10	39
ADMINISTRATIVE SERVICES MANAGERS	20	0.07	32
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	900	3.15	13
GENERAL MANAGERS AND TOP EXECUTIVES	210	0.73	21
ALL OTHER MANAGERS AND ADMINISTRATORS	60	0.21	21
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	230	0.80	N/A
ACCOUNTANTS AND AUDITORS	130	0.45	27
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.03	45
ALL OTHER MANAGEMENT SUPPORT WORKERS	30	0.10	N/A
ENGINEERS	30	0.10	13
COMPUTER PROGRAMMERS	10	0.03	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	30	0.10	N/A
SALES AND RELATED OCCUPATIONS	950	3.32	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	20	0.07	41
SALES AGENTS, SELECTED BUSINESS SERVICES	890	3.11	16
ALL OTHER SALES AND RELATED WORKERS	40	0.14	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	5,220	18.26	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	60	0.21	16
ADJUSTMENT CLERKS	40	0.14	23
SECRETARIES	530	1.85	15
RECEPTIONIST AND INFORMATION CLERKS	90	0.31	8
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	20	0.07	12
FILE CLERKS	20	0.07	25
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	850	2.97	11
PAYROLL AND TIMEKEEPING CLERKS	20	0.07	22
BILLING, COST AND RATE CLERKS	410	1.43	15
GENERAL OFFICE CLERKS	1,010	3.53	13
BILLING, POSTING, CALCULATING MACH. OPERATORS	140	0.49	33
PERIPHERAL EDP EQUIPMENT OPERATORS	10	0.03	38
DATA ENTRY KEYERS, EXCEPT COMPOSING	130	0.45	25
SWITCHBOARD OPERATORS	20	0.07	23
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	450	1.57	15
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	20	0.07	55
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	800	2.80	16
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	310	1.08	37

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
TRUCKING AND WAREHOUSING
SIC = 42
REFERENCE DATE MAY, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	300	1.05	N/A
SERVICE OCCUPATIONS	170	0.59	N/A
CLEANING AND BUILDING SERVICE OCCUPATIONS	60	0.21	34
ALL OTHER SERVICE WORKERS	110	0.38	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	100	0.35	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	20,640	72.19	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	60	0.21	23
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	750	2.62	12
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	380	1.33	26
AUTOMOTIVE MECHANICS	160	0.56	50
AUTOMOTIVE BODY AND RELATED REPAIRERS	20	0.07	45
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	1,010	3.53	13
HEATING, A/C & REFRIG MECHANICS & INSTALLERS	10	0.03	N/A
TIRE REPAIRERS CHANGERS	10	0.03	28
ALL OTHER CONSTRUCTION TRADES WORKERS	290	1.01	N/A
ALL OTHER HAND WORKERS	90	0.31	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	9,770	34.17	6
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	2,900	10.14	16
ALL OTHER TRANSPORTATION AND RELATED WORKERS	540	1.89	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	1,150	4.02	25
REFUSE COLLECTORS	650	2.27	50
HAND PACKERS AND PACKAGERS	1,490	5.21	11
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	1,350	4.72	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
TRUCKING, LOCAL AND LONG DISTANCE
SIC = 421
REFERENCE DATE MAY, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	25,980	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,100	4.23	N/A
FINANCIAL MANAGERS	40	0.15	25
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.08	17
PURCHASING MANAGERS	10	0.04	40
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	20	0.08	30
ADMINISTRATIVE SERVICES MANAGERS	20	0.08	32
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	780	3.00	14
GENERAL MANAGERS AND TOP EXECUTIVES	170	0.65	25
ALL OTHER MANAGERS AND ADMINISTRATORS	40	0.15	31
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	180	0.69	N/A
ACCOUNTANTS AND AUDITORS	110	0.42	29
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.04	45
ALL OTHER MANAGEMENT SUPPORT WORKERS	30	0.12	N/A
ENGINEERS	30	0.12	15
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	10	0.04	N/A
SALES AND RELATED OCCUPATIONS	700	2.69	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	20	0.08	44
SALES AGENTS, SELECTED BUSINESS SERVICES	660	2.54	15
ALL OTHER SALES AND RELATED WORKERS	20	0.08	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	3,980	15.32	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	50	0.19	18
ADJUSTMENT CLERKS	40	0.15	25
SECRETARIES	440	1.69	17
RECEPTIONIST AND INFORMATION CLERKS	90	0.35	8
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.04	15
FILE CLERKS	20	0.08	27
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	780	3.00	11
PAYROLL AND TIMEKEEPING CLERKS	20	0.08	23
BILLING, COST AND RATE CLERKS	390	1.50	16
GENERAL OFFICE CLERKS	920	3.54	13
BILLING, POSTING, CALCULATING MACH. OPERATORS	110	0.42	37
PERIPHERAL EDP EQUIPMENT OPERATORS	10	0.04	38
DATA ENTRY KEYERS, EXCEPT COMPOSING	90	0.35	27
SWITCHBOARD OPERATORS	20	0.08	27
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	430	1.66	15
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	180	0.69	40
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	90	0.35	39
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	300	1.15	N/A
SERVICE OCCUPATIONS	160	0.62	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
TRUCKING, LOCAL AND LONG DISTANCE
SIC = 421
REFERENCE DATE MAY, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
CLEANING AND BUILDING SERVICE OCCUPATIONS	50	0.19	36
ALL OTHER SERVICE WORKERS	110	0.42	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	100	0.38	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	19,760	76.06	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	40	0.15	32
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	710	2.73	12
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	280	1.08	29
AUTOMOTIVE MECHANICS	160	0.62	50
AUTOMOTIVE BODY AND RELATED REPAIRERS	20	0.08	45
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	1,010	3.89	13
TIRE REPAIRERS CHANGERS	10	0.04	28
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	110	0.42	N/A
ALL OTHER HAND WORKERS	170	0.65	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	9,680	37.26	6
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	2,850	10.97	17
ALL OTHER TRANSPORTATION AND RELATED WORKERS	540	2.08	30
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	810	3.12	33
REFUSE COLLECTORS	650	2.50	50
HAND PACKERS AND PACKAGERS	1,440	5.54	11
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	1,290	4.97	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PUBLIC WAREHOUSING
SIC = 422
REFERENCE DATE MAY, 1985

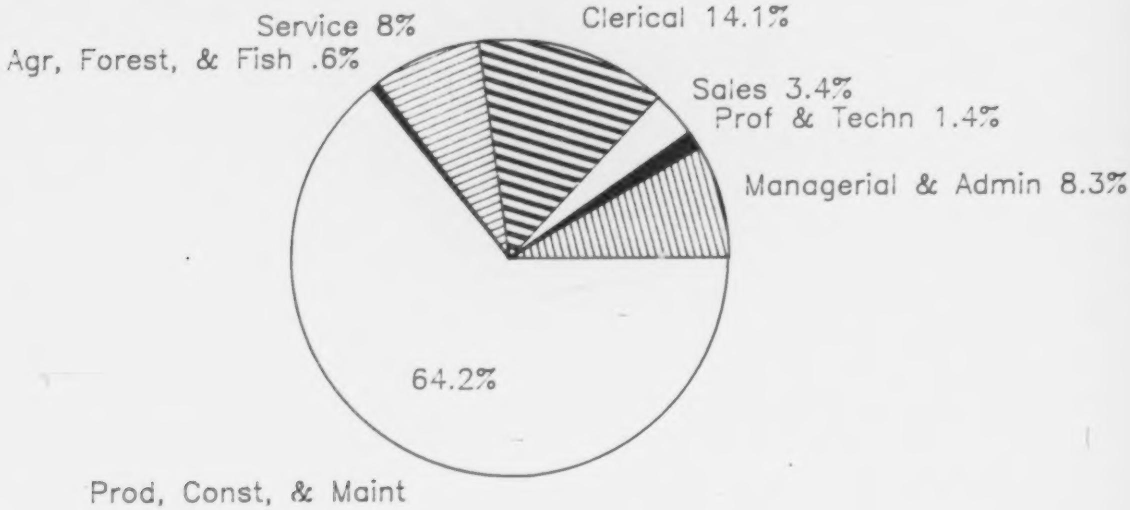
OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,500	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	190	7.60	N/A
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	110	4.40	28
GENERAL MANAGERS AND TOP EXECUTIVES	40	1.60	26
ALL OTHER MANAGERS AND ADMINISTRATORS	40	1.60	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	50	2.00	N/A
COMPUTER PROGRAMMERS	10	0.40	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	50	2.00	N/A
SALES AND RELATED OCCUPATIONS	240	9.60	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,220	48.80	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.40	32
SECRETARIES	90	3.60	35
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	70	2.80	43
GENERAL OFFICE CLERKS	90	3.60	42
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	620	24.80	18
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	220	8.80	50
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	120	4.80	N/A
SERVICE OCCUPATIONS	10	0.40	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	800	32.00	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	20	0.80	6
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	40	1.60	45
MAINTENANCE REPAIRERS, GENERAL UTILITY	20	0.80	26
HEATING, A/C & REFRIG MECHANICS & INSTALLERS	10	0.40	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	110	4.40	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	10	0.40	10
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	60	2.40	48
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	340	13.60	35
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	190	7.60	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Water Transportation (SIC 44)

Distribution of Employment by Major Occupation Category



Ranked Occupational Employment

1.	Stevedores, except Equipment Operators	520
2.	All Other Helpers, Laborers, Mat'l Movers Hand	200
3.	Carpenters	150
4.	Painters, Paperhangers, Constr. & Maintenance	140
5.	Food & Beverage Preparation & Service Occs.	130
6.	Longshore Equipment Operators	120
7.	Communications, Trans. & Util. Operations Mgrs	100
8.	General Managers and Top Executives	100
9.	General Office Clerks	100
10.	Small Engine Specialists	100

SIC 44

This major group includes establishments engaged in freight and passenger transportation on the open seas or inland waters, and establishments furnishing such incidental services as cargo handling, towing and canal operation. Employment increased by about 770, or 28.5 percent, over the 1982 level of 2700. The favorable direction of the state economy and the rehabilitation of some docking facilities contributed to increases in the water transportation services, SIC 446, which includes cargo handling.

The distribution within major occupational categories shows over 64 percent of the jobs are in the production, construction, and maintenance area. The stevedore occupation comprises 15 percent of industry employment, making it the largest single occupation in the water transportation field.

TABLE
OCCUPATIONS OF EMPLOYEES
WATER TRANSPORTATION
SIC = 44
REFERENCE DATE APRIL, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	3,470	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	290	8.36	N/A
FINANCIAL MANAGERS	20	0.58	17
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.29	40
PURCHASING MANAGERS	10	0.29	27
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.29	47
ADMINISTRATIVE SERVICES MANAGERS	10	0.29	34
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	100	2.88	15
GENERAL MANAGERS AND TOP EXECUTIVES	100	2.88	14
ALL OTHER MANAGERS AND ADMINISTRATORS	30	0.86	32
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	50	1.44	N/A
ACCOUNTANTS AND AUDITORS	20	0.58	25
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	20	0.58	31
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	0.58	N/A
SALES AND RELATED OCCUPATIONS	120	3.46	N/A
SALES AGENTS, SELECTED BUSINESS SERVICES	80	2.31	21
ALL OTHER SALES AND RELATED WORKERS	40	1.15	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	490	14.12	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.29	25
RESERVATION & TRANSPORTATION TICKET AGENTS	30	0.86	25
SECRETARIES	70	2.02	15
RECEPTIONIST AND INFORMATION CLERKS	10	0.29	26
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	90	2.59	11
PAYROLL AND TIMEKEEPING CLERKS	10	0.29	17
BILLING, COST AND RATE CLERKS	30	0.86	25
GENERAL OFFICE CLERKS	100	2.88	27
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	70	2.02	42
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	30	0.86	49
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	0.58	N/A
SERVICE OCCUPATIONS	280	8.07	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.29	35
GUARDS AND WATCH GUARDS	30	0.86	37
FOOD & BEVERAGE PREPARATION & SERVICE OCCUP.	130	3.75	40
CLEANING AND BUILDING SERVICE OCCUPATIONS	60	1.73	41
GUIDES	20	0.58	30
ALL OTHER SERVICE WORKERS	30	0.86	34
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	20	0.58	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,230	64.27	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	70	2.02	14
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	50	1.44	19

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
WATER TRANSPORTATION

SIC = 44
REFERENCE DATE APRIL, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	20	0.58	46
MACHINERY MAINTENANCE MECHANIC, MARINE EQUIP.	60	1.73	27
MAINTENANCE REPAIRERS, GENERAL UTILITY	70	2.02	32
AUTOMOTIVE MECHANICS	10	0.29	42
SMALL ENGINE SPECIALISTS	100	2.88	16
RIGGERS	60	1.73	18
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	60	1.73	N/A
CARPENTERS	150	4.32	19
ELECTRICIANS	20	0.58	35
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	140	4.03	19
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.29	45
PRECISION PRODUCTION OCCUPATIONS	10	0.29	52
PAINTERS, TRANSPORTATION EQUIPMENT	10	0.29	58
ALL OTHER HAND WORKERS	40	1.15	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	30	0.86	42
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.29	47
CAPTAINS, WATER VESSEL	90	2.59	18
MATES, SHIP, BOAT, AND BARGE	60	1.73	31
ABLE SEAMEN	50	1.44	29
ORDINARY SEAMEN AND MARINE OILERS	60	1.73	24
SHIP ENGINEERS	30	0.86	37
SERVICE STATION ATTENDANTS	20	0.58	33
ALL OTHER TRANSPORTATION AND RELATED WORKERS	60	1.73	N/A
LONGSHORE EQUIPMENT OPERATORS	120	3.46	28
HOIST AND WINCH OPERATORS	50	1.44	33
CRANE AND TOWER OPERATORS	50	1.44	20
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	10	0.29	37
STEVEDORES, EXCEPT EQUIPMENT OPERATORS	520	14.99	21
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	200	5.76	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
WATER TRANSPORTATION SERVICES
SIC = 446
REFERENCE DATE APRIL, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,780	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	220	7.91	N/A
FINANCIAL MANAGERS	10	0.36	20
PURCHASING MANAGERS	10	0.36	27
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	60	2.16	17
GENERAL MANAGERS AND TOP EXECUTIVES	80	2.88	14
ALL OTHER MANAGERS AND ADMINISTRATORS	50	1.80	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	40	1.44	N/A
ACCOUNTANTS AND AUDITORS	10	0.36	35
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.36	34
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	0.72	N/A
SALES AND RELATED OCCUPATIONS	40	1.44	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	380	13.67	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.36	25
SECRETARIES	50	1.80	18
RECEPTIONIST AND INFORMATION CLERKS	10	0.36	26
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	80	2.88	12
PAYROLL AND TIMEKEEPING CLERKS	10	0.36	19
BILLING, COST AND RATE CLERKS	20	0.72	22
GENERAL OFFICE CLERKS	50	1.80	18
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	130	4.68	N/A
SERVICE OCCUPATIONS	190	6.83	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	20	0.72	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,890	67.99	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	60	2.16	14
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	50	1.80	20
MACHINERY MAINTENANCE MECHANIC, MARINE EQUIP.	50	1.80	28
ALL OTHER MACHINERY MAINTENANCE MECHANICS	20	0.72	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	70	2.52	33
SMALL ENGINE SPECIALISTS	100	3.60	16
RIGGERS	60	2.16	18
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	40	1.44	N/A
CARPENTERS	150	5.40	19
ELECTRICIANS	20	0.72	35
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	140	5.04	19
ALL OTHER CONSTRUCTION TRADES WORKERS	20	0.72	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	20	0.72	N/A
ALL OTHER HAND WORKERS	30	1.08	N/A
SERVICE STATION ATTENDANTS	20	0.72	33

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
WATER TRANSPORTATION SERVICES
SIC = 446
REFERENCE DATE APRIL, 1985

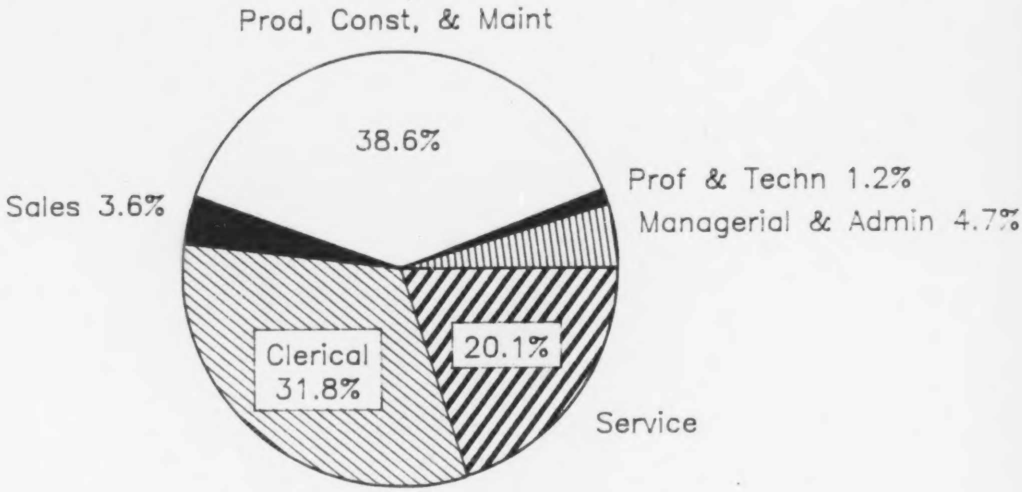
OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER TRANSPORTATION AND RELATED WORKERS	90	3.24	N/A
LONGSHORE EQUIPMENT OPERATORS	120	4.32	28
HOIST AND WINCH OPERATORS	50	1.80	33
CRANE AND TOWER OPERATORS	50	1.80	20
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	20	0.72	N/A
STEVEDORES, EXCEPT EQUIPMENT OPERATORS	520	18.71	21
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	190	6.83	19

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Transportation by Air (SIC 45)

Distribution of Employment by Major Occupation Category



Ranked Occupational Employment

1.	Reservation & Transportation Ticket Agents	1760
2.	Flight Attendants	1700
3.	All Other Helpers, Laborers, Mat'l Movers Hand	1070
4.	Aircraft Pilots and Flight Engineers	970
5.	Transportation Agents	600
6.	Aircraft Mechanics	560
7.	Truck Drivers, Light - Inc. Del. & Route Workers	560
8.	Communications Trans. & Util Operations Mgrs	320
9.	Adjustment Clerks	200

SIC 45

This major group includes establishments engaged in furnishing domestic and foreign transportation by air and also those operating airports and flying fields and furnishing terminal services. Following the enactment of the Air Deregulation Act in October 1978, employment in this group declined by 11.5 percent from the peak of 10,230 in 1980 to 8,940 in 1982. Results from the latest survey in 1985 show a trend reversal and a 10 percent gain to the 10,360 level. The gain was achieved during a period when mergers characterized the airline industry. Instead of expected reductions in employment levels, increased discounting of airfares contributed to heightened competition and promotional activity, leading to strong increases in passenger traffic. Logan International Airport is now the 13th busiest in the world, based on number of passengers with tickets starting or terminating at Boston.

The employment distribution within major occupational categories shows 39 percent of the jobs are located in the production, construction, and maintenance category, followed by 32 percent in the clerical field and 20 percent in services. The most important individual occupations are reservation and ticket agent and flight attendant, both employing about 1700 persons.

Air transportation employment could fall back under the 10,000 level by 1995.

TABLE
OCCUPATIONS OF EMPLOYEES
TRANSPORTATION BY AIR
SIC = 45
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	10,330	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	490	4.74	N/A
FINANCIAL MANAGERS	10	0.10	25
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.10	20
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	30	0.29	23
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	320	3.10	40
GENERAL MANAGERS AND TOP EXECUTIVES	60	0.58	19
ALL OTHER MANAGERS AND ADMINISTRATORS	70	0.68	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	120	1.16	N/A
ACCOUNTANTS AND AUDITORS	10	0.10	27
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.10	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	10	0.10	46
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.10	N/A
TEACHERS & INSTRUCTORS, VOC ED AND TRAINING	30	0.29	30
AIRPLANE DISPATCHERS & AIR TRAFFIC CONTROLLER	30	0.29	39
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	20	0.19	N/A
SALES AND RELATED OCCUPATIONS	370	3.58	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	50	0.48	26
SALES AGENTS, SELECTED BUSINESS SERVICES	180	1.74	25
CASHIERS	40	0.39	47
ALL OTHER SALES AND RELATED WORKERS	100	0.97	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	3,280	31.75	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	130	1.26	17
ADJUSTMENT CLERKS	200	1.94	32
RESERVATION & TRANSPORTATION TICKET AGENTS	1,760	17.04	13
SECRETARIES	150	1.45	14
RECEPTIONIST AND INFORMATION CLERKS	10	0.10	28
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	70	0.68	20
GENERAL OFFICE CLERKS	120	1.16	14
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	20	0.19	43
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.10	N/A
TRANSPORTATION AGENTS	600	5.81	11
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	30	0.29	14
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	180	1.74	N/A
SERVICE OCCUPATIONS	2,080	20.14	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	70	0.68	22
CLEANING AND BUILDING SERVICE OCCUPATIONS	70	0.68	5
BAGGAGE PORTERS AND BELLHOPS	80	0.77	12
FLIGHT ATTENDANTS	1,700	16.46	12
ALL OTHER SERVICE WORKERS	160	1.55	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available.

TABLE
OCCUPATIONS OF EMPLOYEES
TRANSPORTATION BY AIR
SIC = 45
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,990	38.63	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	100	0.97	15
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	100	0.97	28
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	30	0.29	16
TRANSPORTATION INSPECTORS	30	0.29	28
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	10	0.10	N/A
MACHINERY MAINTENANCE MECHANICS	50	0.48	42
MAINTENANCE REPAIRERS, GENERAL UTILITY	110	1.06	25
AUTOMOTIVE MECHANICS	30	0.29	9
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	30	0.29	47
AIRCRAFT MECHANICS	560	5.42	8
AIRCRAFT ENGINE SPECIALISTS	20	0.19	36
RADIO MECHANICS	10	0.10	50
ELECTRONICS REPAIRERS, COMMERCIAL & IND.EQUIP	10	0.10	39
ELECTRICAL INSTALLERS & REP., TRANSP. EQUIP.	10	0.10	34
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	560	5.42	29
AIRCRAFT PILOTS AND FLIGHT ENGINEERS	970	9.39	11
ALL OTHER TRANSPORTATION AND RELATED WORKERS	40	0.39	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	180	1.74	33
VEHICLE WASHERS AND EQUIPMENT CLEANERS	80	0.77	11
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	1,070	10.36	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
CERTIFIED AIR TRANSPORTATION
SIC = 451
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	8,720	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	370	4.24	N/A
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.11	20
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	20	0.23	28
GENERAL MANAGERS AND TOP EXECUTIVES	40	0.46	25
ALL OTHER MANAGERS AND ADMINISTRATORS	290	3.33	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	60	0.69	N/A
ACCOUNTANTS AND AUDITORS	10	0.11	37
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.11	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	10	0.11	46
TEACHERS & INSTRUCTORS, VOC ED AND TRAINING	10	0.11	41
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	20	0.23	N/A
SALES AND RELATED OCCUPATIONS	310	3.56	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	50	0.57	30
SALES AGENTS, SELECTED BUSINESS SERVICES	130	1.49	35
CASHIERS	40	0.46	47
ALL OTHER SALES AND RELATED WORKERS	100	1.15	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	2,940	33.72	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	120	1.38	18
ADJUSTMENT CLERKS	180	2.06	35
RESERVATION & TRANSPORTATION TICKET AGENTS	1,720	19.72	14
SECRETARIES	100	1.15	21
RECEPTIONIST AND INFORMATION CLERKS	10	0.11	28
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	20	0.23	39
BILLING, COST AND RATE CLERKS	70	0.80	83
GENERAL OFFICE CLERKS	50	0.57	28
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	10	0.11	141
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	10	0.11	N/A
TRANSPORTATION AGENTS	570	6.54	11
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	20	0.23	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	60	0.69	N/A
SERVICE OCCUPATIONS	1,950	22.36	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	70	0.80	23
CLEANING AND BUILDING SERVICE OCCUPATIONS	50	0.57	5
BAGGAGE PORTERS AND BELLHOPS	60	0.69	13
FLIGHT ATTENDANTS	1,660	19.04	12
ALL OTHER SERVICE WORKERS	120	1.38	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,100	35.55	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	50	0.57	24
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	70	0.80	41

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
CERTIFIED AIR TRANSPORTATION
SIC = 451
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	30	0.34	15
TRANSPORTATION INSPECTORS	20	0.23	28
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	10	0.11	N/A
MACHINERY MAINTENANCE MECHANICS	20	0.23	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	80	0.92	33
AUTOMOTIVE MECHANICS	20	0.23	13
AIRCRAFT MECHANICS	420	4.82	7
AIRCRAFT ENGINE SPECIALISTS	10	0.11	39
RADIO MECHANICS	10	0.11	50
ELECTRONICS REPAIRERS, COMMERCIAL & IND.EQUIP	10	0.11	39
ELECTRICAL INSTALLERS & REP., TRANSP. EQUIP.	10	0.11	37
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	30	0.34	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	480	5.50	33
AIRCRAFT PILOTS AND FLIGHT ENGINEERS	800	9.17	13
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	90	1.03	N/A
VEHICLE WASHERS AND EQUIPMENT CLEANERS	70	0.80	11
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	890	10.21	15

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

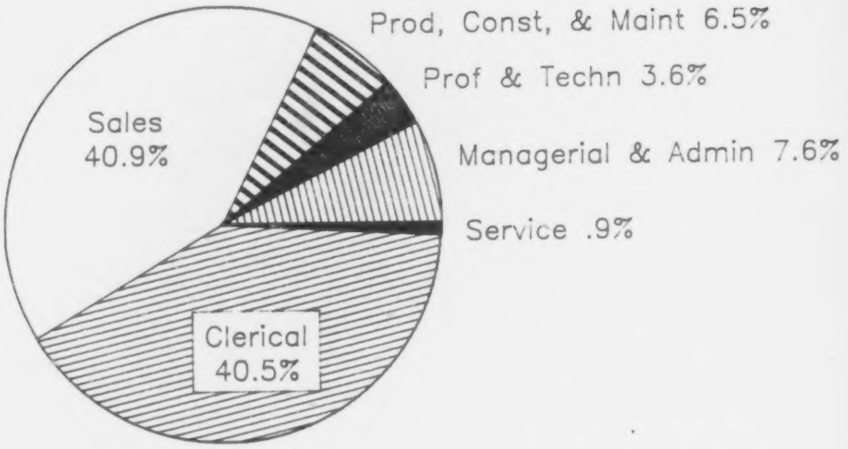
TABLE
OCCUPATIONS OF EMPLOYEES
AIR TRANSPORTATION SERVICES
SIC = 458
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,180	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	100	8.47	N/A
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	60	5.08	21
GENERAL MANAGERS AND TOP EXECUTIVES	10	0.85	32
ALL OTHER MANAGERS AND ADMINISTRATORS	20	1.69	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	40	3.39	N/A
TEACHERS & INSTRUCTORS, VOC ED AND TRAINING	20	1.69	42
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	30	2.54	N/A
SALES AND RELATED OCCUPATIONS	40	3.39	N/A
SALES AGENTS, SELECTED BUSINESS SERVICES	40	3.39	23
ALL OTHER SALES AND RELATED WORKERS	10	0.85	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	270	22.88	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.85	41
SECRETARIES	40	3.39	15
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	30	2.54	23
BILLING, COST AND RATE CLERKS	30	2.54	38
GENERAL OFFICE CLERKS	60	5.08	15
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	10	0.85	43
TRANSPORTATION AGENTS	10	0.85	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.85	40
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	60	5.08	N/A
SERVICE OCCUPATIONS	90	7.63	N/A
CLEANING AND BUILDING SERVICE OCCUPATIONS	20	1.69	12
BAGGAGE PORTERS AND BELLHOPS	30	2.54	27
ALL OTHER SERVICE WORKERS	50	4.24	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	640	54.24	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	30	2.54	20
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	20	1.69	26
ALL OTHER MACHINERY MAINTENANCE MECHANICS	50	4.24	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	2.54	30
AUTOMOTIVE MECHANICS	10	0.85	N/A
AIRCRAFT MECHANICS	100	8.47	27
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	10	0.85	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	70	5.93	11
ALL OTHER MOTOR VEHICLE OPERATORS	20	1.69	N/A
AIRCRAFT PILOTS AND FLIGHT ENGINEERS	100	8.47	28
ALL OTHER TRANSPORTATION AND RELATED WORKERS	40	3.39	N/A
VEHICLE WASHERS AND EQUIPMENT CLEANERS	10	0.85	39
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	160	13.56	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Transportation Services (SIC 47)

Distribution of Employment by Major Occupation Category



Ranked Occupational Employment

1.	Travel Agents	3240
2.	Supervisor & Mgr/Supv. - Clerical/Admin Support	590
3.	Bookkeeping, Accounting, & Auditing Clerks	560
4.	General Office Clerks	530
5.	Sales Agents, Selected Business Services	350
6.	Data Entry Keyers, except Composing	330
7.	Secretaries	300
8.	Communications, Trans, & Util Operations Mgrs	280
9.	Reservation & Transportation Ticket Agents	270
10.	Truck Drivers, Light - Inc. Del & Route Workers	210

SIC 47

This major group includes establishments furnishing services incidental to transportation, such as forwarding and packing service and the arrangement of passenger and freight transportation. The transportation services group had a rapid increase in employment of about 3,500, or 62 percent, over the 1982 level of 5700. The ascending direction of the state economy, as well as the deregulation of the trucking and airline industries, contributed to the favorable results. The arrangement of transportation segment, SIC 472, contains 83 percent of the group employment.

The distribution within occupational categories shows over 80 percent of the jobs are in the sales and clerical groups. The occupation of travel agent within the sales group has over 35 percent of the transportation services total employment and is projected to grow nearly 50 percent by 1995.

TABLE
OCCUPATIONS OF EMPLOYEES
TRANSPORTATION SERVICES
SIC = 47
REFERENCE DATE APRIL, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	9,210	100.00	100
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	700	7.60	N/A
FINANCIAL MANAGERS	40	0.43	9
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.22	9
PURCHASING MANAGERS	10	0.11	19
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	60	0.65	19
ADMINISTRATIVE SERVICES MANAGERS	60	0.65	19
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	280	3.04	10
GENERAL MANAGERS AND TOP EXECUTIVES	180	1.95	12
ALL OTHER MANAGERS AND ADMINISTRATORS	60	0.65	21
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	330	3.58	N/A
ACCOUNTANTS AND AUDITORS	140	1.52	13
BUDGET ANALYSTS	10	0.11	25
ALL OTHER FINANCIAL SPECIALISTS	20	0.22	38
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.11	35
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	30	0.33	12
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.22	44
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	20	0.22	19
COMPUTER PROGRAMMERS	30	0.33	13
COMPUTER PROGRAMMER AIDES	40	0.43	25
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	20	0.22	32
SALES AND RELATED OCCUPATIONS	3,770	40.93	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	120	1.30	25
SALES AGENTS, SELECTED BUSINESS SERVICES	350	3.80	10
TRAVEL AGENTS	3,240	35.18	6
CASHIERS	20	0.22	41
ALL OTHER SALES AND RELATED WORKERS	50	0.54	47
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	3,730	40.50	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	590	6.41	6
ADJUSTMENT CLERKS	80	0.87	19
TRAVEL CLERKS	100	1.09	29
RESERVATION & TRANSPORTATION TICKET AGENTS	270	2.93	24
SECRETARIES	300	3.26	9
STENOGRAPHERS	30	0.33	40
RECEPTIONIST AND INFORMATION CLERKS	80	0.87	20
TYPISTS	90	0.98	26
TYPISTS, WORD PROCESSING EQUIPMENT	40	0.43	18
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.11	N/A
FILE CLERKS	10	0.11	38
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	120	1.30	33

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
TRANSPORTATION SERVICES
SIC = 47
REFERENCE DATE APRIL, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
FILE CLERKS	10	0.11	38
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	120	1.30	33
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	560	6.08	12
PAYROLL AND TIMEKEEPING CLERKS	10	0.11	22
BILLING, COST AND RATE CLERKS	150	1.63	17
GENERAL OFFICE CLERKS	530	5.75	11
BILLING, POSTING, CALCULATING MACH. OPERATORS	50	0.54	15
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	60	0.65	16
DATA ENTRY KEYERS, EXCEPT COMPOSING	330	3.58	44
SWITCHBOARD OPERATORS	30	0.33	15
MESSENGERS	60	0.65	20
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	20	0.22	11
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	30	0.33	12
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	130	1.41	14
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	50	0.54	N/A
SERVICE OCCUPATIONS	80	0.87	N/A
CLEANING AND BUILDING SERVICE OCCUPATIONS	30	0.33	26
GUIDES	50	0.54	26
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	600	6.51	N/A
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	10	0.11	17
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	10	0.11	33
MAINTENANCE REPAIRERS, GENERAL UTILITY	20	0.22	N/A
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	20	0.22	22
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	30	0.33	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	170	1.85	19
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	210	2.28	10
ALL OTHER TRANSPORTATION AND RELATED WORKERS	20	0.22	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	50	0.54	29
STEVEDORES, EXCEPT EQUIPMENT OPERATORS	10	0.11	47
HAND PACKERS AND PACKAGERS	30	0.33	48
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	20	0.22	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
FREIGHT FORWARDING
SIC = 471
REFERENCE DATE APRIL, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,420	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	150	10.56	N/A
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	110	7.75	5
GENERAL MANAGERS AND TOP EXECUTIVES	20	1.41	14
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.70	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	20	1.41	N/A
ACCOUNTANTS AND AUDITORS	20	1.41	13
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	10	0.70	N/A
SALES AND RELATED OCCUPATIONS	150	10.56	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	10	0.70	24
SALES AGENTS, SELECTED BUSINESS SERVICES	130	9.15	6
ALL OTHER SALES AND RELATED WORKERS	10	0.70	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	730	51.41	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	90	6.34	11
ADJUSTMENT CLERKS	20	1.41	N/A
SECRETARIES	40	2.82	7
RECEPTIONIST AND INFORMATION CLERKS	10	0.70	11
TYPISTS	20	1.41	42
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	50	3.52	40
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	70	4.93	15
BILLING, COST AND RATE CLERKS	50	3.52	12
GENERAL OFFICE CLERKS	150	10.56	6
BILLING, POSTING, CALCULATING MACH. OPERATORS	40	2.82	16
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	20	1.41	20
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.70	N/A
SWITCHBOARD OPERATORS	10	0.70	12
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	20	1.41	11
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	20	1.41	14
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	110	7.75	16
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.70	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	370	26.06	N/A
SUPERVISORS-TRANSP., MATERIAL MOVING MACHINE	10	0.70	12
SUPERVISORS-HELPERS, LABORERS,MAT.MOVERS HAND	10	0.70	33
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	20	1.41	22
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	20	1.41	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	140	9.86	22
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	160	11.27	6
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	10	0.70	25
STEVEDORES, EXCEPT EQUIPMENT OPERATORS	10	0.70	47
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	10	0.70	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ARRANGEMENT OF TRANSPORTATION
SIC = 472
REFERENCE DATE APRIL, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	7,610	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	540	7.10	N/A
FINANCIAL MANAGERS	30	0.39	10
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.26	9
PURCHASING MANAGERS	10	0.13	19
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	50	0.66	20
ADMINISTRATIVE SERVICES MANAGERS	60	0.79	19
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	160	2.10	17
GENERAL MANAGERS AND TOP EXECUTIVES	160	2.10	14
ALL OTHER MANAGERS AND ADMINISTRATORS	50	0.66	24
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	310	4.07	N/A
ACCOUNTANTS AND AUDITORS	120	1.58	14
BUDGET ANALYSTS	10	0.13	25
ALL OTHER FINANCIAL SPECIALISTS	20	0.26	38
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.13	35
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	30	0.39	12
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.26	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	20	0.26	19
COMPUTER PROGRAMMERS	30	0.39	13
COMPUTER PROGRAMMER AIDES	40	0.53	25
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	20	0.26	34
SALES AND RELATED OCCUPATIONS	3,620	47.57	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	110	1.45	26
SALES AGENTS, SELECTED BUSINESS SERVICES	210	2.76	17
TRAVEL AGENTS	3,240	42.58	6
CASHIERS	20	0.26	41
ALL OTHER SALES AND RELATED WORKERS	40	0.53	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	2,970	39.03	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	510	6.70	7
ADJUSTMENT CLERKS	60	0.79	27
TRAVEL CLERKS	100	1.31	29
RESERVATION & TRANSPORTATION TICKET AGENTS	270	3.55	24
SECRETARIES	260	3.42	11
STENOGRAPHERS	30	0.39	40
RECEPTIONIST AND INFORMATION CLERKS	70	0.92	24
TYPISTS	70	0.92	32
TYPISTS, WORD PROCESSING EQUIPMENT	40	0.53	19
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.13	N/A
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	70	0.92	48
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	490	6.44	14

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ARRANGEMENT OF TRANSPORTATION
SIC = 472
REFERENCE DATE APRIL, 1985

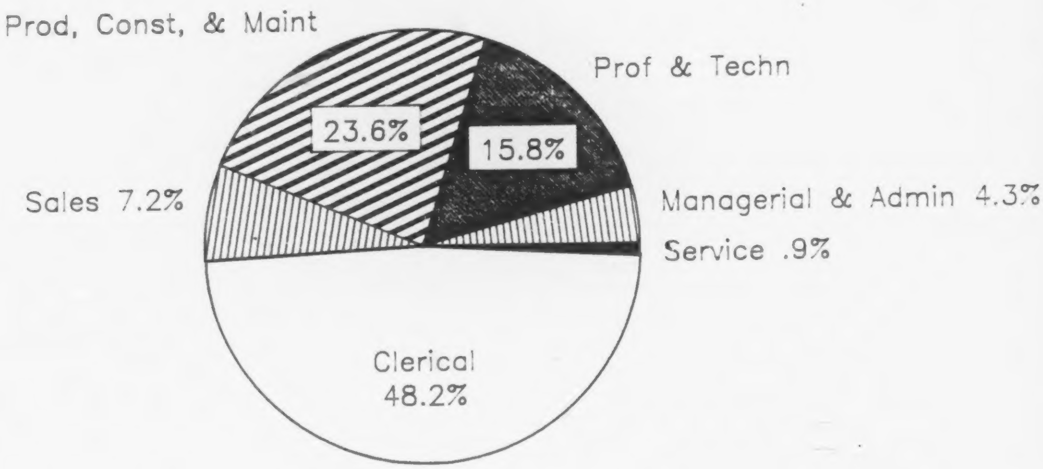
OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PAYROLL AND TIMEKEEPING CLERKS	10	0.13	22
BILLING, COST AND RATE CLERKS	100	1.31	26
GENERAL OFFICE CLERKS	380	4.99	16
BILLING, POSTING, CALCULATING MACH. OPERATORS	10	0.13	38
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	50	0.66	20
DATA ENTRY KEYERS, EXCEPT COMPOSING	310	4.07	46
SWITCHBOARD OPERATORS	20	0.26	22
MESSENGERS	60	0.79	21
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.13	33
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	20	0.26	25
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	60	0.79	N/A
SERVICE OCCUPATIONS	80	1.05	N/A
CLEANING AND BUILDING SERVICE OCCUPATIONS	30	0.39	28
GUIDES	50	0.66	26
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	90	1.18	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	50	0.66	34
ALL OTHER TRANSPORTATION AND RELATED WORKERS	20	0.26	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	10	0.13	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Communication (SIC 48)

Distribution of Employment by Major Occupation Category



Ranked Occupational Employment

1.	Supervisor & Mgr/Supvr - Clerical/Admin Support	5010
2.	General Office Clerks	3170
3.	Station Installers and Repairers, Telephone	2770
4.	Customer Service Representatives, Utilities	2470
5.	Central Office and PBX Installers & Repairers	2000
6.	Sales Agents, Selected Business Services	1530
7.	Central Office Operators	1410
8.	Production, Planning, and Expediting Clerks	1100
9.	All Other Clerical & Administrative Support Wkrs	1080
10.	Electrical Powerline Installers and Repairers	1070

SIC 48

This major group includes telephone communication, radio and television broadcasting and miscellaneous communication services. The industry had an employment loss of about 3000, or 16 percent, from its 1982 level of 37,790. Telephone communications, SIC 481, dominates this group with over 80 percent of employment. Deregulation, which occurred in January 1984, had a strong impact on the telephone communication industry. Since the last survey, employment has dropped substantially. The one communication industry segment showing strong growth was communication not elsewhere classified, SIC 489, which includes cable television.

The distribution within occupational categories shows 48 percent in clerical and 24 percent in the production, construction, and maintenance group. The occupational distribution has followed the change in the industries of the major group. Managerial jobs declined by almost 10 percent, while professional and technical picked up 7 percent. This shift resulted from the cable television industry increases. The electrical and electronic technician occupation had 25 percent of the professional and technical category increase.

It is projected that the major growth in the group will occur in cable television during the next ten years. Opportunities will exist for electrical and electronic engineers and engineering technicians, as well as line installer-repairers, clerical workers and sales agents.

TABLE
OCCUPATIONS OF EMPLOYEES
COMMUNICATION
SIC = 48
REFERENCE DATE MAY, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	34,470	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,480	4.29	N/A
FINANCIAL MANAGERS	130	0.38	12
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.03	35
PURCHASING MANAGERS	10	0.03	47
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	340	0.99	11
ENGINEERING, MATH, & MATERIALS SCIENCE MGRS.	150	0.44	8
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	180	0.52	11
GENERAL MANAGERS AND TOP EXECUTIVES	570	1.65	3
ALL OTHER MANAGERS AND ADMINISTRATORS	80	0.23	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	5,460	15.84	N/A
ACCOUNTANTS AND AUDITORS	90	0.26	7
ALL OTHER MANAGEMENT SUPPORT WORKERS	60	0.17	N/A
ELECTRICAL AND ELECTRONIC ENGINEERS	60	0.17	12
ALL OTHER ENGINEERS	440	1.28	1
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	690	2.00	4
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	40	0.12	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	320	0.93	N/A
COMPUTER PROGRAMMERS	240	0.70	2
LAWYERS	30	0.09	9
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	10	0.03	N/A
WRITERS AND EDITORS	190	0.55	10
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	70	0.20	13
REPORTERS AND CORRESPONDENTS	390	1.13	26
BROADCAST NEWS ANALYSTS	110	0.32	22
ANNOUNCERS, RADIO AND TELEVISION	770	2.23	8
PHOTOGRAPHERS	40	0.12	24
BROADCAST TECHNICIANS	940	2.73	13
PRODUCERS,DIRECTORS,ACTORS,OTHER ENTERTAINERS	330	0.96	12
RADIO OPERATORS	220	0.64	41
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	400	1.16	N/A
SALES AND RELATED OCCUPATIONS	2,470	7.17	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	460	1.33	4
SALES AGENTS, SELECTED BUSINESS SERVICES	1,530	4.44	5
SALES AGENTS, ADVERTISING	370	1.07	14
CASHIERS	40	0.12	23
ALL OTHER SALES AND RELATED WORKERS	80	0.23	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	16,630	48.24	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	5,010	14.53	N/A
ADJUSTMENT CLERKS	160	0.46	35

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
COMMUNICATION
SIC = 48
REFERENCE DATE MAY, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ADJUSTMENT CLERKS	160	0.46	35
BILL AND ACCOUNT COLLECTORS	40	0.12	15
SECRETARIES	420	1.22	4
RECEPTIONIST AND INFORMATION CLERKS	140	0.41	11
TYPISTS	30	0.09	31
TYPISTS, WORD PROCESSING EQUIPMENT	30	0.09	N/A
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	20	0.06	34
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	300	0.87	16
CUSTOMER SERVICE REPRESENTATIVES, UTILITIES	2,470	7.17	3
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	690	2.00	2
PAYROLL AND TIMEKEEPING CLERKS	10	0.03	29
BILLING, COST AND RATE CLERKS	70	0.20	22
GENERAL OFFICE CLERKS	3,170	9.20	1
BILLING, POSTING, CALCULATING MACH. OPERATORS	60	0.17	31
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	60	0.17	23
DATA ENTRY KEYERS, EXCEPT COMPOSING	130	0.38	18
ALL OTHER OFFICE MACHINE OPERATORS	30	0.09	N/A
SWITCHBOARD OPERATORS	40	0.12	40
CENTRAL OFFICE OPERATORS	1,410	4.09	1
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	60	0.17	7
MESSENGERS	20	0.06	39
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	60	0.17	40
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	1,100	3.19	1
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	20	0.06	35
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	10	0.03	49
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	1,080	3.13	N/A
SERVICE OCCUPATIONS	300	0.87	N/A
CLEANING AND BUILDING SERVICE OCCUPATIONS	290	0.84	5
ALL OTHER SERVICE WORKERS	10	0.03	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	8,140	23.61	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	750	2.18	3
PRECISION INSPECTORS, TESTERS, AND GRADERS	100	0.29	11
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	10	0.03	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.03	43
AUTOMOTIVE MECHANICS	110	0.32	N/A
CENTRAL OFFICE AND PBX INSTALLERS & REPAIRERS	2,000	5.80	N/A
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	120	0.35	N/A
TELEPHONE, CABLE TV LINE INSTALLERS,REPAIRERS	900	2.61	9
ELECTRONICS REPAIRERS, COMMERCIAL & IND.EQUIP	220	0.64	5
ELECTRICAL POWERLINE INSTALLERS & REPAIRERS	1,070	3.10	1

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
COMMUNICATION
SIC = 48
REFERENCE DATE MAY, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
STATION INSTALLERS AND REPAIRERS, TELEPHONE	2,770	8.04	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	60	0.17	N/A
ALL OTHER TRANSPORTATION AND RELATED WORKERS	30	0.09	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
TELEPHONE COMMUNICATION
SIC = 481
REFERENCE DATE MAY, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	26,110	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	690	2.64	N/A
FINANCIAL MANAGERS	30	0.11	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	70	0.27	N/A
ENGINEERING, MATH, & MATERIALS SCIENCE MGRS.	100	0.38	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	450	1.72	N/A
ALL OTHER MANAGERS AND ADMINISTRATORS	30	0.11	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	1,570	6.01	N/A
ACCOUNTANTS AND AUDITORS	60	0.23	N/A
ELECTRICAL AND ELECTRONIC ENGINEERS	30	0.11	N/A
ALL OTHER ENGINEERS	440	1.69	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	440	1.69	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	320	1.23	N/A
COMPUTER PROGRAMMERS	240	0.92	N/A
LAWYERS	30	0.11	N/A
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	10	0.04	N/A
SALES AND RELATED OCCUPATIONS	1,540	5.90	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	410	1.57	N/A
SALES AGENTS, SELECTED BUSINESS SERVICES	1,130	4.33	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	14,910	57.10	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	4,920	18.84	N/A
ADJUSTMENT CLERKS	40	0.15	N/A
SECRETARIES	140	0.54	N/A
RECEPTIONIST AND INFORMATION CLERKS	60	0.23	N/A
TYPISTS, WORD PROCESSING EQUIPMENT	30	0.11	N/A
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	230	0.88	N/A
CUSTOMER SERVICE REPRESENTATIVES, UTILITIES	2,210	8.46	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	590	2.26	N/A
BILLING, COST AND RATE CLERKS	30	0.11	N/A
GENERAL OFFICE CLERKS	3,070	11.76	N/A
DATA ENTRY KEYERS, EXCEPT COMPOSING	70	0.27	N/A
CENTRAL OFFICE OPERATORS	1,390	5.32	N/A
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	30	0.11	N/A
PRODUCTION, PLANNING, AND EXPEDITING CLERKS	1,090	4.17	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.04	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	1,000	3.83	N/A
SERVICE OCCUPATIONS	240	0.92	N/A
CLEANING AND BUILDING SERVICE OCCUPATIONS	240	0.92	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	7,170	27.46	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	620	2.37	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

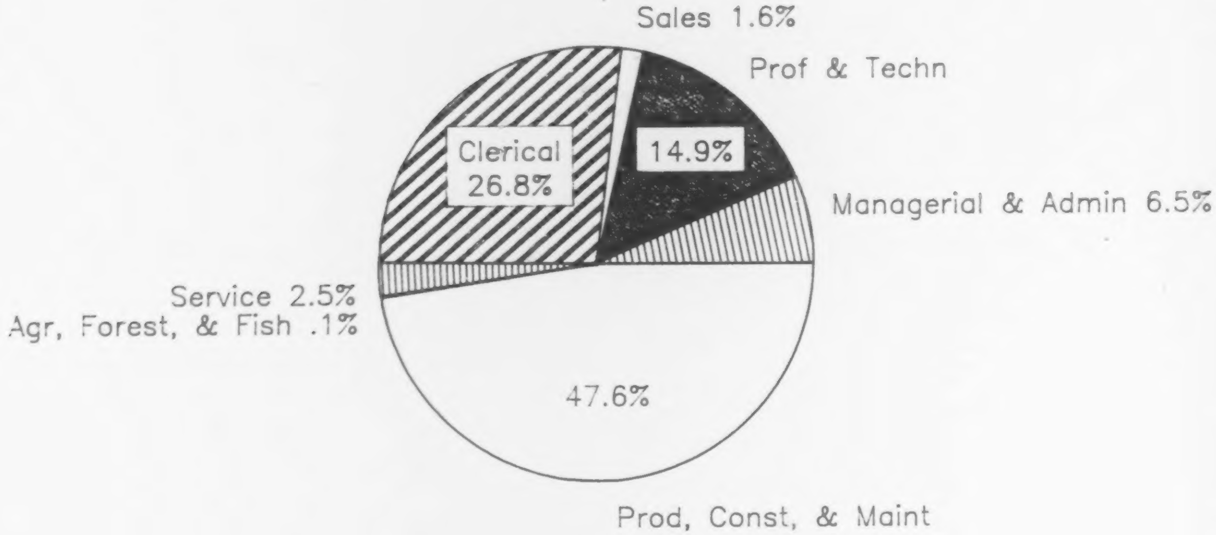
TABLE
OCCUPATIONS OF EMPLOYEES
TELEPHONE COMMUNICATION
SIC = 481
REFERENCE DATE MAY, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRECISION INSPECTORS, TESTERS, AND GRADERS	70	0.27	N/A
AUTOMOTIVE MECHANICS	110	0.42	N/A
CENTRAL OFFICE AND PBX INSTALLERS & REPAIRERS	1,990	7.62	N/A
TELEPHONE, CABLE TV LINE INSTALLERS,REPAIRERS	350	1.34	N/A
ELECTRONICS REPAIRERS, COMMERCIAL & IND.EQUIP	200	0.77	N/A
ELECTRICAL POWERLINE INSTALLERS & REPAIRERS	1,060	4.06	N/A
STATION INSTALLERS AND REPAIRERS, TELEPHONE	2,770	10.61	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Electric, Gas, and Sanitary Service (SIC 49)

Distribution of Employment by Major Occupation Category



Ranked Occupational Employment

1.	Electrical Powerline Installers and Repairers	2070
2.	General Office Clerks	910
3.	Meter Readers, Utilities	870
4.	Gas Appliance Repairers	730
5.	Supervisors - Mechanics, Installers, & Repairers	690
6.	General Managers and Top Executives	540
7.	Refuse Collectors	510
8.	Customer Service Representatives, Utilities	460
9.	Truck Drivers, Heavy or Tractor Trailor	440
10.	Machinery Maintenance Mechanic, Water or Power Gen	420

SIC 49

This major group includes establishments engaged in the generation, transmission, and/or distribution of electricity, gas, or steam. Sanitary systems engaged in the collection and disposal of garbage, sewage, and other wastes by means of destroying or processing materials are also included. The group had a small employment increase of 600, or 3.2 percent, over the 1982 level of 18,630. Electric services, SIC 491, represents about 60 percent of total employment. Although small in size, sanitary services, SIC 495, had a large employment increase since 1982. Gas production and distribution, SIC 492, registered a small decline in jobs.

The occupational group, managers and administrators, which experienced a 23 percent decrease between 1979 to 1982, continued to decline another two percent between 1982 to 1985. Another small decline of three percent was registered by the clerical group, while the production, construction and maintenance group increased by just over 4 percent.

Employment in gas and electric services is projected to hold at about the present level through the mid-90s. However, sanitary services is projected to grow over 46 percent during the same period as communities have to face up to landfill problems and continued constraints of environmental legislation. Since 74 percent of the jobs in the sanitary services industry are in the production, construction and maintenance group, it is in this area that the new job opportunities are projected during the next 10 years.

TABLE
OCCUPATIONS OF EMPLOYEES
ELECTRIC, GAS, AND SANITARY SERVICES
SIC = 49
REFERENCE DATE APRIL, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	19,230	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,250	6.50	N/A
FINANCIAL MANAGERS	40	0.21	11
PERSONNEL, TRAINING, AND LABOR RELATIONS MGRS.	50	0.26	9
PURCHASING MANAGERS	10	0.05	17
MARKETING, ADVERTISING, PUBLIC RELATIONS MGRS.	110	0.57	21
ADMINISTRATIVE SERVICES MANAGERS	40	0.21	9
ENGINEERING, MATH, & MATERIALS SCIENCE MGRS.	180	0.94	13
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	170	0.88	9
GENERAL MANAGERS AND TOP EXECUTIVES	540	2.81	8
ALL OTHER MANAGERS AND ADMINISTRATORS	120	0.62	20
PROFESSIONAL, PARAPROFESSIONAL, TECH OCCUPATION	2,870	14.92	N/A
ACCOUNTANTS AND AUDITORS	130	0.68	11
BUDGET ANALYSTS	50	0.26	25
ALL OTHER FINANCIAL SPECIALISTS	80	0.42	22
PURCH AGENTS EXCEPT WHOLESALE, RETAIL & FARM	40	0.21	12
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	110	0.57	12
ALL OTHER MANAGEMENT SUPPORT WORKERS	220	1.14	12
CHEMICAL ENGINEERS	30	0.16	14
NUCLEAR ENGINEERS	110	0.57	36
CIVIL ENGINEERS, INCLUDING TRAFFIC	90	0.47	24
ELECTRICAL AND ELECTRONIC ENGINEERS	370	1.92	9
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	10	0.05	8
SAFETY ENGINEERS, EXCEPT MINING	10	0.05	10
MECHANICAL ENGINEERS	170	0.88	13
ALL OTHER ENGINEERS	110	0.57	19
SURVEYING AND MAPPING SCIENTISTS	10	0.05	N/A
CIVIL ENGINEERING TECHNICIAN AND TECHNOLOGIST	80	0.42	43
ELECTRICAL, ELECTRONIC ENGINEERING TECH & TECH	340	1.77	29
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	60	0.31	32
DRAFTERS	180	0.94	19
ESTIMATORS AND DRAFTERS, UTILITIES	130	0.68	27
SURVEYING & MAPPING TECHNICIANS & TECHNOL.	20	0.10	16
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	90	0.47	31
ALL OTHER PHYSICAL SCIENTISTS	40	0.21	16
PHYSICAL, LIFE SCIENCE TECHNICIAN & TECHNOL.	60	0.31	29
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	150	0.78	26
COMPUTER PROGRAMMERS	30	0.16	18
LAWYERS	20	0.10	24
FARM AND HOME MANAGEMENT ADVISORS	20	0.10	31

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ELECTRIC, GAS, AND SANITARY SERVICES
SIC = 49
REFERENCE DATE APRIL, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
HEALTH PRACTITIONERS, TECHNOLOGISTS, TECHNICIAN	20	0.10	8
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	50	0.26	26
ALL OTHER PROFESSIONAL, PARAPROF., &TECHNICAL	50	0.26	N/A
SALES AND RELATED OCCUPATIONS	310	1.61	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	30	0.16	13
SALES AGENTS, SELECTED BUSINESS SERVICES	100	0.52	13
SALESPERSONS, RETAIL	40	0.21	18
CASHIERS	50	0.26	15
ALL OTHER SALES AND RELATED WORKERS	90	0.47	22
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	5,160	26.83	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	350	1.82	6
ADJUSTMENT CLERKS	220	1.14	24
BILL AND ACCOUNT COLLECTORS	250	1.30	8
SECRETARIES	390	2.03	7
STENOGRAPHERS	30	0.16	12
RECEPTIONIST AND INFORMATION CLERKS	20	0.10	N/A
TYPISTS	40	0.21	24
TYPISTS, WORD PROCESSING EQUIPMENT	40	0.21	19
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	50	0.26	15
CORRESPONDENCE CLERKS	20	0.10	14
FILE CLERKS	310	1.61	16
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	50	0.26	23
CUSTOMER SERVICE REPRESENTATIVES, UTILITIES	460	2.39	13
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	190	0.99	11
PAYROLL AND TIMEKEEPING CLERKS	50	0.26	8
BILLING, COST AND RATE CLERKS	140	0.73	13
GENERAL OFFICE CLERKS	910	4.73	12
BILLING, POSTING, CALCULATING MACH. OPERATORS	30	0.16	17
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	30	0.16	15
DATA ENTRY KEYERS, EXCEPT COMPOSING	70	0.36	17
ALL OTHER OFFICE MACHINE OPERATORS	40	0.21	N/A
SWITCHBOARD OPERATORS	40	0.21	9
DISPATCHERS-EXCEPT POLICE, FIRE, AND AMBULANCE	190	0.99	8
METER READERS, UTILITIES	870	4.52	12
STOCK CLERKS-STOCKROOM, WAREHOUSE STORAGE YARD	320	1.66	7
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	10	0.05	28
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	30	0.16	30
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	50	0.26	25
SERVICE, OCCUPATIONS	470	2.44	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	120	0.62	8

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ELECTRIC, GAS, AND SANITARY SERVICES
SIC = 49
REFERENCE DATE APRIL, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
GUARDS AND WATCH GUARDS	10	0.05	N/A
CLEANING AND BUILDING SERVICE OCCUPATIONS	270	1.40	11
ALL OTHER SERVICE WORKERS	70	0.36	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	10	0.05	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	9,160	47.63	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	690	3.59	11
SUPERVISORS-CONSTRUCTION & EXTRACTIVE WORKERS	100	0.52	13
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	240	1.25	17
PRECISION INSPECTORS, TESTERS, AND GRADERS	80	0.42	23
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	30	0.16	43
MACHINERY MAINT MECHANIC, WATER OR POWER GEN.	420	2.18	13
ALL OTHER MACHINERY MAINTENANCE MECHANICS	10	0.05	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	250	1.30	17
AUTOMOTIVE MECHANICS	260	1.35	9
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	140	0.73	15
MOBILE HEAVY EQUIP MECHANICS, EXCEPT ENGINES	20	0.10	38
ELECTRIC MOTOR,TRANSFORMER & RELATED REPAIRER	10	0.05	N/A
POWERHOUSE,SUBSTATION & RELAY ELECTRICIANS	340	1.77	13
ELECTRICAL POWERLINE INSTALLERS & REPAIRERS	2,070	10.76	7
ALL OTHER ELEC & ELECTR EQUIP MECH,REP,INSTAL	20	0.10	21
HEATING, A/C & REFRIG MECHANICS & INSTALLERS	10	0.05	N/A
PRECISION INSTRUMENT REPAIRERS	50	0.26	25
ELECTRIC METER INSTALLERS AND REPAIRERS	350	1.82	20
MECHANICAL CONTROL,VALVE INSTALLERS & REPAIR	90	0.47	26
GAS APPLIANCE REPAIRERS	730	3.80	9
ELECTRICIANS	30	0.16	8
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	30	0.16	22
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	120	0.62	29
PIPELAYERS	320	1.66	12
ALL OTHER CONSTRUCTION TRADES WORKERS	170	0.88	N/A
ALL OTHER PRECISION WORKERS	10	0.05	N/A
BOILER OPERATORS AND TENDERS, LOW PRESSURE	60	0.31	25
ALL OTHER MACHINE OPERATORS AND TENDERS	30	0.16	N/A
WELDERS AND CUTTERS	80	0.42	9
LIQUID WASTE TREATMENT PLANT & SYSTEM OPER.	30	0.16	36
GAS PLANT OPERATORS	140	0.73	22
POWER GEN PLANT OPERATORS, EXCEPT AUX EQUIP.	220	1.14	10
AUXILIARY EQUIPMENT OPERATORS, POWER	180	0.94	23
POWER REACTOR OPERATORS	60	0.31	43
POWER DISTRIBUTORS AND DISPATCHERS	340	1.77	19

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ELECTRIC, GAS, AND SANITARY SERVICES
SIC = 49
REFERENCE DATE APRIL, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
STATIONARY ENGINEERS	30	0.16	31
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	440	2.29	12
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	90	0.47	26
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	30	0.16	48
OPERATING ENGINEERS	100	0.52	18
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	40	0.21	N/A
MECHANIC AND REPAIRER HELPERS	20	0.10	28
HELPERS-ELEC & POWERLINE TRANSMISSION INSTAL	20	0.10	28
REFUSE COLLECTORS	510	2.65	13
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	170	0.88	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ELECTRIC SERVICES
SIC = 491

REFERENCE DATE MAY, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	11,600	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	800	6.90	N/A
FINANCIAL MANAGERS	10	0.09	23
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.17	18
PURCHASING MANAGERS	**	0.00	N/A
ADMINISTRATIVE SERVICES MANAGERS	10	0.09	20
ENGINEERING, MATH, & MATERIALS SCIENCE MGRS.	150	1.29	15
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	80	0.69	16
GENERAL MANAGERS AND TOP EXECUTIVES	440	3.79	10
ALL OTHER MANAGERS AND ADMINISTRATORS	90	0.78	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	2,210	19.05	N/A
ACCOUNTANTS AND AUDITORS	60	0.52	21
BUDGET ANALYSTS	20	0.17	33
ALL OTHER FINANCIAL SPECIALISTS	80	0.69	23
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	20	0.17	20
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	80	0.69	16
ALL OTHER MANAGEMENT SUPPORT WORKERS	140	1.21	17
CHEMICAL ENGINEERS	20	0.17	14
NUCLEAR ENGINEERS	110	0.95	36
CIVIL ENGINEERS, INCLUDING TRAFFIC	50	0.43	34
ELECTRICAL AND ELECTRONIC ENGINEERS	340	2.93	9
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	10	0.09	N/A
MECHANICAL ENGINEERS	120	1.03	15
ALL OTHER ENGINEERS	110	0.95	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	320	2.76	30
MECHANICAL ENGINEERING TECHNICIANS & TECHNOL.	50	0.43	36
DRAFTERS	110	0.95	27
ESTIMATORS AND DRAFTERS, UTILITIES	120	1.03	30
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	120	1.03	N/A
ALL OTHER PHYSICAL SCIENTISTS	30	0.26	17
PHYSICAL, LIFE SCIENCE TECHNICIAN & TECHNOL.	30	0.26	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	120	1.03	32
ALL OTHER MATHEMATICAL SCIENTISTS	20	0.17	N/A
LAWYERS	20	0.17	33
FARM AND HOME MANAGEMENT ADVISORS	20	0.17	43
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	10	0.09	11
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	40	0.34	32
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	30	0.26	33
SALES AND RELATED OCCUPATIONS	60	0.52	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	3,120	26.90	N/A

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ELECTRIC SERVICES
SIC = 491
REFERENCE DATE MAY, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	190	1.64	9
ADJUSTMENT CLERKS	150	1.29	29
BILL AND ACCOUNT COLLECTORS	140	1.21	12
SECRETARIES	200	1.72	11
STENOGRAPHERS	10	0.09	11
TYPISTS	30	0.26	30
TYPISTS, WORD PROCESSING EQUIPMENT	30	0.26	26
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	40	0.34	18
CORRESPONDENCE CLERKS	10	0.09	27
FILE CLERKS	270	2.33	18
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	30	0.26	42
CUSTOMER SERVICE REPRESENTATIVES, UTILITIES	250	2.16	18
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	30	0.26	26
PAYROLL AND TIMEKEEPING CLERKS	20	0.17	23
BILLING, COST AND RATE CLERKS	30	0.26	25
GENERAL OFFICE CLERKS	700	6.03	15
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	20	0.17	23
DATA ENTRY KEYERS, EXCEPT COMPOSING	40	0.34	31
ALL OTHER OFFICE MACHINE OPERATORS	30	0.26	34
SWITCHBOARD OPERATORS	20	0.17	18
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	50	0.43	26
METER READERS, UTILITIES	590	5.09	16
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	230	1.98	9
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	30	0.26	35
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	0.17	N/A
SERVICE OCCUPATIONS	300	2.59	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	40	0.34	17
GUARDS AND WATCH GUARDS	10	0.09	N/A
CLEANING AND BUILDING SERVICE OCCUPATIONS	190	1.64	13
ALL OTHER SERVICE WORKERS	60	0.52	28
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	10	0.09	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	5,120	44.14	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	450	3.88	15
SUPERVISORS-CONSTRUCTION & EXTRACTIVE WORKERS	10	0.09	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	190	1.64	21
PRECISION INSPECTORS, TESTERS, AND GRADERS	60	0.52	28
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	30	0.26	43
MACHINERY MAINT MECHANIC, WATER OR POWER GEN.	310	2.67	16
MAINTENANCE REPAIRERS, GENERAL UTILITY	100	0.86	34
AUTOMOTIVE MECHANICS	170	1.47	10

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ELECTRIC SERVICES
SIC = 491
REFERENCE DATE MAY, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	20	0.17	29
ELECTRIC MOTOR,TRANSFORMER & RELATED REPAIRER	10	0.09	N/A
POWERHOUSE,SUBSTATION & RELAY ELECTRICIANS	330	2.84	13
ELECTRICAL POWERLINE INSTALLERS & REPAIRERS	2,040	17.59	7
ALL OTHER ELEC & ELECTR EQUIP MECH,REP,INSTAL	30	0.26	N/A
PRECISION INSTRUMENT REPAIRERS	40	0.34	32
ELECTRIC METER INSTALLERS AND REPAIRERS	330	2.84	22
ELECTRICIANS	20	0.17	N/A
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	30	0.26	22
ALL OTHER CONSTRUCTION TRADES WORKERS	60	0.52	N/A
BOILER OPERATORS AND TENDERS, LOW PRESSURE	40	0.34	34
ALL OTHER MACHINE OPERATORS AND TENDERS	10	0.09	N/A
WELDERS AND CUTTERS	20	0.17	N/A
ALL OTHER HAND WORKERS	30	0.26	N/A
POWER GEN PLANT OPERATORS, EXCEPT AUX EQUIP.	210	1.81	10
AUXILIARY EQUIPMENT OPERATORS, POWER	120	1.03	30
POWER REACTOR OPERATORS	60	0.52	43
POWER DISTRIBUTORS AND DISPATCHERS	320	2.76	21
STATIONARY ENGINEERS	20	0.17	37
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	10	0.09	38
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	20	0.17	18
HELPERS-ELEC & POWERLINE TRANSMISSION INSTAL	10	0.09	34
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	10	0.09	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
GAS PRODUCTION AND DISTRIBUTION
SIC = 492
REFERENCE DATE APRIL, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,800	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	250	5.21	N/A
FINANCIAL MANAGERS	20	0.42	18
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.42	12
PURCHASING MANAGERS	10	0.21	22
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	20	0.42	20
ADMINISTRATIVE SERVICES MANAGERS	10	0.21	10
ENGINEERING, MATH, & MATERIALS SCIENCE MGRS.	20	0.42	16
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	50	1.04	14
GENERAL MANAGERS AND TOP EXECUTIVES	50	1.04	10
ALL OTHER MANAGERS AND ADMINISTRATORS	50	1.04	19
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	470	9.79	N/A
ACCOUNTANTS AND AUDITORS	40	0.83	14
BUDGET ANALYSTS	20	0.42	19
ALL OTHER FINANCIAL SPECIALISTS	10	0.21	45
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	20	0.42	12
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	20	0.42	11
ALL OTHER MANAGEMENT SUPPORT WORKERS	30	0.63	23
CIVIL ENGINEERS, INCLUDING TRAFFIC	30	0.63	37
INDUSTRIAL ENGINEERS, EXCEPT SAFETY	10	0.21	14
MECHANICAL ENGINEERS	40	0.83	33
ALL OTHER ENGINEERS	10	0.21	N/A
SURVEYING AND MAPPING SCIENTISTS	10	0.21	N/A
CIVIL ENGINEERING TECHNICIAN AND TECHNOLOGIST	20	0.42	17
DRAFTERS	70	1.46	25
ESTIMATORS AND DRAFTERS, UTILITIES	10	0.21	47
SURVEYING & MAPPING TECHNICIANS & TECHNOL.	20	0.42	16
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	40	0.83	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	30	0.63	7
COMPUTER PROGRAMMERS	30	0.63	14
LAWYERS	10	0.21	N/A
FARM AND HOME MANAGEMENT ADVISORS	10	0.21	29
HEALTH PRACTITIONERS,TECHNOLOGISTS,TECHNICIAN	10	0.21	N/A
PUBLIC REL. SPECIALISTS & PUBLICITY WRITERS	10	0.21	N/A
SALES AND RELATED OCCUPATIONS	190	3.96	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	30	0.63	14
SALES AGENTS, SELECTED BUSINESS SERVICES	50	1.04	20
SALESPERSONS, RETAIL	40	0.83	18
CASHIERS	40	0.83	20
ALL OTHER SALES AND RELATED WORKERS	30	0.63	39

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
GAS PRODUCTION AND DISTRIBUTION
SIC = 492
REFERENCE DATE APRIL, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,610	33.54	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	140	2.92	5
ADJUSTMENT CLERKS	70	1.46	43
BILL AND ACCOUNT COLLECTORS	90	1.88	13
SECRETARIES	110	2.29	5
STENOGRAPHERS	20	0.42	17
RECEPTIONIST AND INFORMATION CLERKS	10	0.21	N/A
TYPISTS	10	0.21	17
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.21	35
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.21	14
CORRESPONDENCE CLERKS	10	0.21	N/A
FILE CLERKS	40	0.83	37
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	30	0.63	14
CUSTOMER SERVICE REPRESENTATIVES, UTILITIES	190	3.96	20
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	110	2.29	16
PAYROLL AND TIMEKEEPING CLERKS	30	0.63	6
BILLING, COST AND RATE CLERKS	80	1.67	21
GENERAL OFFICE CLERKS	140	2.92	12
BILLING, POSTING, CALCULATING MACH. OPERATORS	10	0.21	14
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.21	19
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.42	20
ALL OTHER OFFICE MACHINE OPERATORS	10	0.21	N/A
SWITCHBOARD OPERATORS	10	0.21	8
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	110	2.29	6
METER READERS, UTILITIES	230	4.79	12
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	70	1.46	9
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	10	0.21	28
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.21	20
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	30	0.63	33
SERVICE OCCUPATIONS	100	2.08	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	70	1.46	9
CLEANING AND BUILDING SERVICE OCCUPATIONS	30	0.63	11
ALL OTHER SERVICE WORKERS	10	0.21	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,180	45.42	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	150	3.13	19
SUPERVISORS-CONSTRUCTION & EXTRACTIVE WORKERS	70	1.46	15
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	30	0.63	31
MACHINERY MAINT MECHANIC, WATER OR POWER GEN.	60	1.25	31
ALL OTHER MACHINERY MAINTENANCE MECHANICS	30	0.63	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	90	1.88	21

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
GAS PRODUCTION AND DISTRIBUTION
SIC = 492
REFERENCE DATE APRIL, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
MAINTENANCE REPAIRERS, GENERAL UTILITY	90	1.88	21
AUTOMOTIVE MECHANICS	40	0.83	13
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	30	0.63	29
HEATING, A/C & REFRIG MECHANICS & INSTALLERS	10	0.21	N/A
PRECISION INSTRUMENT REPAIRERS	10	0.21	33
ELECTRIC METER INSTALLERS AND REPAIRERS	10	0.21	N/A
MECHANICAL CONTROL,VALVE INSTALLERS & REPAIR	50	1.04	31
GAS APPLIANCE REPAIRERS	720	15.00	9
ELECTRICIANS	10	0.21	35
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	110	2.29	32
PIPELAYING FITTERS	60	1.25	66
PIPELAYERS	320	6.67	12
ALL OTHER CONSTRUCTION TRADES WORKERS	30	0.63	N/A
ALL OTHER PRECISION WORKERS	10	0.21	N/A
WELDERS AND CUTTERS	20	0.42	19
GAS PLANT OPERATORS	130	2.71	24
AUXILIARY EQUIPMENT OPERATORS, POWER	60	1.25	26
POWER DISTRIBUTORS AND DISPATCHERS	10	0.21	N/A
ALL OTHER TRANSPORTATION AND RELATED WORKERS	10	0.21	N/A
OPERATING ENGINEERS	70	1.46	20
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	30	0.63	N/A
HELPERS-ALL OTHER CONSTRUCTION TRADES	10	0.21	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
SANITARY SERVICES
SIC = 495
REFERENCE DATE APRIL, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,230	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	140	6.28	N/A
FINANCIAL MANAGERS	10	0.45	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	40	1.79	23
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	20	0.90	16
GENERAL MANAGERS AND TOP EXECUTIVES	40	1.79	29
ALL OTHER MANAGERS AND ADMINISTRATORS	20	0.90	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	70	3.14	N/A
ACCOUNTANTS AND AUDITORS	20	0.90	15
CHEMICAL ENGINEERS	10	0.45	41
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	10	0.45	N/A
PHYSICAL, LIFE SCIENCE TECHNICIAN & TECHNOL.	30	1.35	N/A
SALES AND RELATED OCCUPATIONS	50	2.24	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	270	12.11	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.45	28
BILL AND ACCOUNT COLLECTORS	20	0.90	20
SECRETARIES	60	2.69	20
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	30	1.35	18
BILLING, COST AND RATE CLERKS	20	0.90	19
GENERAL OFFICE CLERKS	60	2.69	20
BILLING, POSTING, CALCULATING MACH. OPERATORS	20	0.90	28
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	30	1.35	15
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	30	1.35	N/A
SERVICE OCCUPATIONS	70	3.14	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	20	0.90	23
GUARDS AND WATCH GUARDS	10	0.45	N/A
CLEANING AND BUILDING SERVICE OCCUPATIONS	40	1.79	31
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,650	73.99	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	80	3.59	14
SUPERVISORS-CONSTRUCTION & EXTRACTIVE WORKERS	20	0.90	49
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.45	42
MACHINERY MAINT MECHANIC, WATER OR POWER GEN.	30	1.35	32
MAINTENANCE REPAIRERS, GENERAL UTILITY	40	1.79	30
AUTOMOTIVE MECHANICS	50	2.24	27
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	90	4.04	21
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	30	1.35	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	30	1.35	N/A
WELDERS AND CUTTERS	30	1.35	17
POWER GEN PLANT OPERATORS, EXCEPT AUX EQUIP.	10	0.45	47
ALL OTHER PLANT AND SYSTEM OPERATORS	40	1.79	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

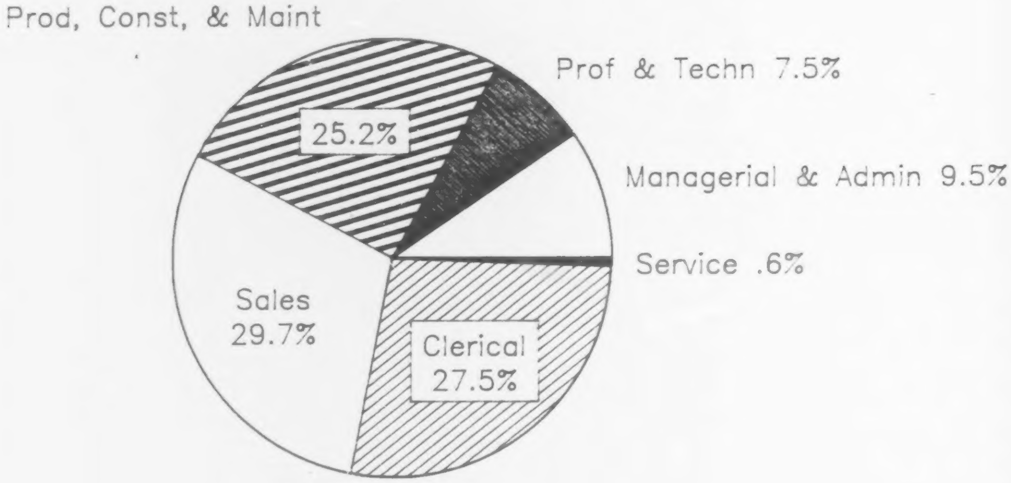
# TABLE
# OCCUPATIONS OF EMPLOYEES
# SANITARY SERVICES
SIC = 495
REFERENCE DATE APRIL, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	430	19.28	12
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	60	2.69	34
OPERATING ENGINEERS	30	1.35	40
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	50	2.24	N/A
MECHANIC AND REPAIRER HELPERS	10	0.45	37
REFUSE COLLECTORS	510	22.87	13
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	100	4.48	32

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Wholesale Trade Durable Goods (SIC 50)

Distribution of Employment by Major Occupation Category



Ranked Occupational Employment

1.	Sales Reps, Scientific Products and Services, exc Retail	8220
2.	Other Sales Representatives, except Retail	7580
3.	General Managers and Top Executives	5760
4.	Secretaries	3570
5.	General Office Clerks	3250
6.	First Line Supervisors and Managers/Supvrs - Sales	2910
7.	Salespersons, Retail	2910
8.	Salespersons, Parts	2860
9.	Bookkeeping, Accounting, and Auditing Clerks	2790
10.	Data Processing Equipment Repairers	2490

SIC 50

The major group wholesale trade durable goods had a strong increase in employment of 14,000, or 19 percent, from its 1982 level of 73,600. Two industries accounted for a large part of the job gain. The largest industry, machinery equipment and supplies, SIC 508, and electrical goods, SIC 506. Strong gains were also recorded in lumber and construction materials, SIC 503. Two of the smaller industries experienced slight declines: furniture and home furnishings, SIC 502, and miscellaneous durable goods, SIC 509.

Sales and related occupations provide 30 percent of the employment in the major group with clerical occupations only slightly less at 28 percent. Production, construction, and maintenance occupations at 25 percent of the total is the other important occupational group.

TABLE
OCCUPATIONS OF EMPLOYEES
WHOLESALE TRADE DURABLE GOODS
SIC = 50
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	87,420	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	8,340	9.54	N/A
FINANCIAL MANAGERS	180	0.21	21
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	60	0.07	24
PURCHASING MANAGERS	870	1.00	15
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	380	0.43	28
ADMINISTRATIVE SERVICES MANAGERS	160	0.18	45
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	150	0.17	19
GENERAL MANAGERS AND TOP EXECUTIVES	5,760	6.59	6
ALL OTHER MANAGERS AND ADMINISTRATORS	790	0.90	24
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	6,530	7.47	N/A
ACCOUNTANTS AND AUDITORS	620	0.71	16
BUDGET ANALYSTS	10	0.01	40
ALL OTHER FINANCIAL SPECIALISTS	20	0.02	23
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	800	0.92	15
PURCHASING AGENTS AND BUYERS-FARM PRODUCTS	140	0.16	41
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	40	0.05	40
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	70	0.08	49
COST ESTIMATORS	30	0.03	31
ALL OTHER MANAGEMENT SUPPORT WORKERS	130	0.15	33
MECHANICAL ENGINEERS	60	0.07	45
ALL OTHER ENGINEERS	950	1.09	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	1,900	2.17	28
DRAFTERS	150	0.17	30
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	180	0.21	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	350	0.40	17
COMPUTER PROGRAMMERS	600	0.69	43
INTERIOR DESIGNERS	20	0.02	44
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	470	0.54	33
SALES AND RELATED OCCUPATIONS	25,980	29.72	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	2,910	3.33	14
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	8,220	9.40	17
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	7,580	8.67	11
SALESPERSONS, RETAIL	2,910	3.33	16
SALESPERSONS, PARTS	2,860	3.27	11
STOCK CLERKS, SALES FLOOR	840	0.96	18
CASHIERS	220	0.25	39
ALL OTHER SALES AND RELATED WORKERS	440	0.50	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	24,040	27.50	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	2,230	2.55	11

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
WHOLESALE TRADE DURABLE GOODS
SIC = 50
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
CREDIT AUTHORIZERS	80	0.09	37
CREDIT CHECKERS	70	0.08	26
ADJUSTMENT CLERKS	230	0.26	46
BILL AND ACCOUNT COLLECTORS	130	0.15	34
SECRETARIES	3,570	4.08	10
RECEPTIONIST AND INFORMATION CLERKS	540	0.62	19
TYPISTS	470	0.54	28
TYPISTS, WORD PROCESSING EQUIPMENT	140	0.16	35
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	40	0.05	34
FILE CLERKS	60	0.07	35
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	1,680	1.92	17
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	2,790	3.19	9
BILLING, COST AND RATE CLERKS	610	0.70	19
GENERAL OFFICE CLERKS	3,250	3.72	12
BILLING, POSTING, CALCULATING MACH. OPERATORS	340	0.39	24
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	510	0.58	18
DATA ENTRY KEYERS, EXCEPT COMPOSING	540	0.62	18
ALL OTHER OFFICE MACHINE OPERATORS	20	0.02	N/A
SWITCHBOARD OPERATORS	230	0.26	16
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	30	0.03	30
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	110	0.13	46
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS	10	0.01	N/A
MARKING CLERKS	30	0.03	4
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	2,310	2.64	10
ORDER FILLERS, WHOLESALE AND RETAIL SALES	1,570	1.80	17
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	1,950	2.23	15
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	130	0.15	28
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	380	0.43	N/A
SERVICE OCCUPATIONS	500	0.57	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	40	0.05	30
ALL OTHER PROTECTIVE SERVICE WORKERS	20	0.02	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	410	0.47	20
ALL OTHER SERVICE WORKERS	40	0.05	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	22,030	25.20	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	1,060	1.21	15
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	200	0.23	26
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	160	0.18	39
ALL OTHER MACHINERY MAINTENANCE MECHANICS	20	0.02	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	660	0.75	31
AUTOMOTIVE MECHANICS	750	0.86	28

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
WHOLESALE TRADE DURABLE GOODS
SIC = 50
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	610	0.70	40
ALL OTHER COMMUNIC. EQUIP MECH, REP, INSTALL.	910	1.04	N/A
DATA PROCESSING EQUIPMENT REPAIRERS	2,490	2.85	36
ALL OTHER ELEC & ELECTR EQUIP MECH,REP,INSTAL	160	0.18	N/A
HEATING, A/C & REFRIG MECHANICS & INSTALLERS	420	0.48	32
TIRE REPAIRERS CHANGERS	210	0.24	31
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	1,180	1.35	N/A
CARPET INSTALLERS	40	0.05	N/A
GLAZIERS	90	0.10	44
ALL OTHER CONSTRUCTION TRADES WORKERS	700	0.80	N/A
MACHINISTS	610	0.70	41
SHEET METAL WORKERS	70	0.08	42
ALL OTHER PRECISION METAL WORKERS	80	0.09	N/A
WOOD MACHINISTS	60	0.07	48
ALL OTHER PRECISION WORKERS	1,060	1.21	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	180	0.21	N/A
WELDERS AND CUTTERS	290	0.33	26
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	750	0.86	33
ALL OTHER HAND WORKERS	440	0.50	41
PLANT AND SYSTEM OCCUPATIONS	10	0.01	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	1,710	1.96	20
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	2,050	2.35	10
SERVICE STATION ATTENDANTS	50	0.06	39
ALL OTHER TRANSPORTATION AND RELATED WORKERS	130	0.15	N/A
CRANE AND TOWER OPERATORS	130	0.15	20
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	430	0.49	29
CONVEYOR OPERATORS AND TENDERS	60	0.07	25
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	120	0.14	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	2,170	2.48	13
HAND PACKERS AND PACKAGERS	730	0.84	39
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	1,240	1.42	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MOTOR VEHICLES AND AUTOMOTIVE EQUIPMENT
SIC = 501
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	9,720	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,020	10.49	N/A
PURCHASING MANAGERS	100	1.03	24
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	30	0.31	23
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	20	0.21	30
GENERAL MANAGERS AND TOP EXECUTIVES	840	8.64	7
ALL OTHER MANAGERS AND ADMINISTRATORS	30	0.31	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	300	3.09	N/A
ACCOUNTANTS AND AUDITORS	40	0.41	21
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	100	1.03	22
COMPUTER PROGRAMMERS	20	0.21	39
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	140	1.44	N/A
SALES AND RELATED OCCUPATIONS	2,890	29.73	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	270	2.78	16
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	110	1.13	40
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	550	5.66	14
SALESPERSONS, RETAIL	250	2.57	30
SALESPERSONS, PARTS	1,590	16.36	9
STOCK CLERKS, SALES FLOOR	110	1.13	32
ALL OTHER SALES AND RELATED WORKERS	10	0.10	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	2,470	25.41	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	160	1.65	15
ADJUSTMENT CLERKS	10	0.10	39
SECRETARIES	130	1.34	19
RECEPTIONIST AND INFORMATION CLERKS	30	0.31	25
TYPISTS	30	0.31	35
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.10	49
FILE CLERKS	10	0.10	40
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	100	1.03	28
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	400	4.12	10
BILLING, COST AND RATE CLERKS	60	0.62	31
GENERAL OFFICE CLERKS	420	4.32	15
BILLING, POSTING, CALCULATING MACH. OPERATORS	50	0.51	29
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	70	0.72	27
DATA ENTRY KEYERS, EXCEPT COMPOSING	90	0.93	24
SWITCHBOARD OPERATORS	20	0.21	21
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	450	4.63	18
ORDER FILLERS, WHOLESALE AND RETAIL SALES	230	2.37	34
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	130	1.34	20
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	70	0.72	N/A

---

[1] - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MOTOR VEHICLES AND AUTOMOTIVE EQUIPMENT
SIC = 501
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SERVICE OCCUPATIONS	70	0.72	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.10	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	60	0.62	27
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,970	30.56	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	150	1.54	17
AUTOMOTIVE MECHANICS	350	3.60	23
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	250	2.57	25
TIRE REPAIRERS CHANGERS	210	2.16	31
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	100	1.03	N/A
MACHINISTS	160	1.65	27
ALL OTHER HAND WORKERS	130	1.34	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	40	0.41	45
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	800	8.23	11
SERVICE STATION ATTENDANTS	50	0.51	39
ALL OTHER TRANSPORTATION AND RELATED WORKERS	130	1.34	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	290	2.98	32
HAND PACKERS AND PACKAGERS	100	1.03	44
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	220	2.26	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
FURNITURE AND HOME FURNISHINGS
SIC = 502
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	3,400	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	390	11.47	N/A
FINANCIAL MANAGERS	10	0.29	N/A
PERSONNEL, TRAINING, AND LABOR RELATIONS MGRS.	10	0.29	N/A
PURCHASING MANAGERS	50	1.47	44
MARKETING, ADVERTISING, PUBLIC RELATIONS MGRS.	20	0.59	N/A
ADMINISTRATIVE SERVICES MANAGERS	10	0.29	N/A
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	10	0.29	21
GENERAL MANAGERS AND TOP EXECUTIVES	210	6.18	18
ALL OTHER MANAGERS AND ADMINISTRATORS	80	2.35	N/A
PROFESSIONAL, PARAPROFESSIONAL, TECH OCCUPATION	130	3.82	N/A
ACCOUNTANTS AND AUDITORS	10	0.29	41
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	20	0.59	35
ALL OTHER ENGINEERS	20	0.59	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.29	N/A
COMPUTER PROGRAMMERS	10	0.29	N/A
DESIGNERS, EXCEPT INTERIOR DESIGNERS	20	0.59	N/A
INTERIOR DESIGNERS	10	0.29	30
MERCHANDISE DISPLAYERS & WINDOW TRIMMERS	10	0.29	N/A
ALL OTHER PROFESSIONAL, PARAPROF., &TECHNICAL	20	0.59	N/A
SALES AND RELATED OCCUPATIONS	860	25.29	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	60	1.76	27
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	440	12.94	20
SALESPERSONS, RETAIL	260	7.65	22
STOCK CLERKS, SALES FLOOR	80	2.35	39
ALL OTHER SALES AND RELATED WORKERS	30	0.88	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,040	30.59	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	100	2.94	19
ADJUSTMENT CLERKS	10	0.29	N/A
BILL AND ACCOUNT COLLECTORS	20	0.59	N/A
SECRETARIES	110	3.24	16
RECEPTIONIST AND INFORMATION CLERKS	30	0.88	33
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	120	3.53	36
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	100	2.94	15
PAYROLL AND TIMEKEEPING CLERKS	10	0.29	N/A
BILLING, COST AND RATE CLERKS	20	0.59	21
GENERAL OFFICE CLERKS	70	2.06	18
BILLING, POSTING, CALCULATING MACH. OPERATORS	10	0.29	41
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	30	0.88	28
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.59	14

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
FURNITURE AND HOME FURNISHINGS
SIC = 502
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SWITCHBOARD OPERATORS	10	0.29	36
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	10	0.29	N/A
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	10	0.29	N/A
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS	10	0.29	N/A
MARKING CLERKS	30	0.88	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	120	3.53	27
ORDER FILLERS, WHOLESALE AND RETAIL SALES	90	2.65	7
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	70	2.06	22
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.29	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	40	1.18	N/A
SERVICE OCCUPATIONS	10	0.29	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	970	28.53	N/A
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	20	0.59	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	20	0.59	49
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	90	2.65	N/A
CARPET INSTALLERS	40	1.18	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	20	0.59	N/A
SHEET METAL WORKERS	10	0.29	N/A
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	80	2.35	18
ALL OTHER HAND WORKERS	120	3.53	N/A
PLANT AND SYSTEM OCCUPATIONS	10	0.29	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	130	3.82	17
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	20	0.59	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	20	0.59	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	290	8.53	20
HAND PACKERS AND PACKAGERS	60	1.76	49
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	20	0.59	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# LUMBER AND CONSTRUCTION MATERIALS
SIC = 503
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	5,700	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	590	10.35	N/A
FINANCIAL MANAGERS	20	0.35	44
PURCHASING MANAGERS	60	1.05	37
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	20	0.35	42
GENERAL MANAGERS AND TOP EXECUTIVES	440	7.72	14
ALL OTHER MANAGERS AND ADMINISTRATORS	50	0.88	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	220	3.86	N/A
ACCOUNTANTS AND AUDITORS	40	0.70	36
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	80	1.40	32
COST ESTIMATORS	20	0.35	39
DRAFTERS	40	0.70	35
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	50	0.88	N/A
SALES AND RELATED OCCUPATIONS	960	16.84	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	130	2.28	28
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	580	10.18	13
SALESPERSONS, RETAIL	110	1.93	39
ALL OTHER SALES AND RELATED WORKERS	140	2.46	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,570	27.54	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	120	2.11	20
CREDIT AUTHORIZERS	10	0.18	47
ADJUSTMENT CLERKS	10	0.18	39
BILL AND ACCOUNT COLLECTORS	10	0.18	38
SECRETARIES	110	1.93	32
RECEPTIONIST AND INFORMATION CLERKS	50	0.88	36
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	100	1.75	35
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	180	3.16	21
BILLING, COST AND RATE CLERKS	70	1.23	29
GENERAL OFFICE CLERKS	260	4.56	18
BILLING, POSTING, CALCULATING MACH. OPERATORS	100	1.75	44
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	50	0.88	38
DATA ENTRY KEYERS, EXCEPT COMPOSING	40	0.70	33
SWITCHBOARD OPERATORS	10	0.18	36
ORDER FILLERS, WHOLESALE AND RETAIL SALES	170	2.98	24
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	110	1.93	26
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	160	2.81	N/A
SERVICE OCCUPATIONS	40	0.70	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,320	40.70	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	70	1.23	42
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	70	1.23	40

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
LUMBER AND CONSTRUCTION MATERIALS
SIC = 503
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	70	1.23	N/A
GLAZIERS	50	0.88	46
ALL OTHER CONSTRUCTION TRADES WORKERS	100	1.75	N/A
ALL OTHER PRECISION WOODWORKERS	60	1.05	N/A
ALL OTHER HAND WORKERS	200	3.51	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	510	8.95	22
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	130	2.28	27
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	130	2.28	34
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	30	0.53	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	480	8.42	20
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	440	7.72	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
METALS AND MINERALS, EXCEPT PETROLEUM
SIC = 505
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,280	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	220	9.65	N/A
PURCHASING MANAGERS	20	0.88	28
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	20	0.88	37
GENERAL MANAGERS AND TOP EXECUTIVES	160	7.02	12
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.44	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	110	4.82	N/A
ACCOUNTANTS AND AUDITORS	30	1.32	21
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	20	0.88	37
COMPUTER PROGRAMMERS	10	0.44	43
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	40	1.75	N/A
SALES AND RELATED OCCUPATIONS	520	22.81	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	70	3.07	18
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	150	6.58	32
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	270	11.84	14
ALL OTHER SALES AND RELATED WORKERS	30	1.32	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	620	27.19	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	50	2.19	20
SECRETARIES	90	3.95	17
RECEPTIONIST AND INFORMATION CLERKS	30	1.32	26
TYPISTS	10	0.44	41
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.44	20
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	80	3.51	17
BILLING, COST AND RATE CLERKS	30	1.32	20
GENERAL OFFICE CLERKS	60	2.63	19
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.44	12
SWITCHBOARD OPERATORS	10	0.44	24
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	80	3.51	30
ORDER FILLERS, WHOLESALE AND RETAIL SALES	70	3.07	16
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	60	2.63	18
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	50	2.19	N/A
SERVICE OCCUPATIONS	10	0.44	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	790	34.65	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	70	3.07	47
MAINTENANCE REPAIRERS, GENERAL UTILITY	20	0.88	27
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	50	2.19	N/A
MACHINISTS	80	3.51	37
ALL OTHER MACHINE OPERATORS AND TENDERS	110	4.82	N/A
ALL OTHER HAND WORKERS	70	3.07	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	110	4.82	13

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
METALS AND MINERALS, EXCEPT PETROLEUM
SIC = 505
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	40	1.75	34
CRANE AND TOWER OPERATORS	20	0.88	30
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	140	6.14	23
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	80	3.51	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ELECTRICAL GOODS
SIC = 506
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	17,930	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,760	9.82	N/A
FINANCIAL MANAGERS	40	0.22	32
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	30	0.17	22
PURCHASING MANAGERS	140	0.78	32
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	100	0.56	36
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	50	0.28	29
GENERAL MANAGERS AND TOP EXECUTIVES	1,220	6.80	10
ALL OTHER MANAGERS AND ADMINISTRATORS	180	1.00	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	1,840	10.26	N/A
ACCOUNTANTS AND AUDITORS	140	0.78	31
ALL OTHER FINANCIAL SPECIALISTS	10	0.06	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	410	2.29	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	680	3.79	31
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	250	1.39	N/A
ALL OTHER MATHEMATICAL SCIENTISTS	230	1.28	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	110	0.61	N/A
SALES AND RELATED OCCUPATIONS	6,070	33.85	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	610	3.40	21
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	2,500	13.94	19
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	1,140	6.36	27
SALESPERSONS, RETAIL	760	4.24	31
STOCK CLERKS, SALES FLOOR	340	1.90	33
ALL OTHER SALES AND RELATED WORKERS	730	4.07	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	5,640	31.46	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	710	3.96	22
SECRETARIES	1,010	5.63	17
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	410	2.29	30
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	530	2.96	20
GENERAL OFFICE CLERKS	740	4.13	20
DATA ENTRY KEYERS, EXCEPT COMPOSING	190	1.06	26
ALL OTHER OFFICE MACHINE OPERATORS	140	0.78	N/A
SWITCHBOARD OPERATORS	60	0.33	23
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	600	3.35	27
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	360	2.01	22
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	260	1.45	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	640	3.57	N/A
SERVICE OCCUPATIONS	100	0.56	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,520	14.05	N/A
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	650	3.63	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
ELECTRICAL GOODS
SIC = 506
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	720	4.02	N/A
ALL OTHER PRECISION WORKERS	200	1.12	N/A
ALL OTHER HAND WORKERS	490	2.73	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	220	1.23	34
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	80	0.45	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	170	0.95	N/A

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
HARDWARE,PLUMBING,& HEATING EQUIPMENT
SIC = 507
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	6,720	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	580	8.63	N/A
FINANCIAL MANAGERS	10	0.15	47
PURCHASING MANAGERS	90	1.34	28
GENERAL MANAGERS AND TOP EXECUTIVES	470	6.99	10
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.15	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	270	4.02	N/A
ACCOUNTANTS AND AUDITORS	70	1.04	29
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	120	1.79	27
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	60	0.89	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	20	0.30	N/A
SALES AND RELATED OCCUPATIONS	1,870	27.83	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	240	3.57	18
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	860	12.80	15
SALESPERSONS, RETAIL	250	3.72	32
SALESPERSONS, PARTS	180	2.68	33
STOCK CLERKS, SALES FLOOR	110	1.64	41
CASHIERS	10	0.15	49
ALL OTHER SALES AND RELATED WORKERS	220	3.27	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	2,290	34.08	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	190	2.83	17
SECRETARIES	190	2.83	24
RECEPTIONIST AND INFORMATION CLERKS	70	1.04	22
TYPISTS	10	0.15	N/A
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	80	1.19	27
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	270	4.02	15
BILLING, COST AND RATE CLERKS	110	1.64	23
GENERAL OFFICE CLERKS	370	5.51	16
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	60	0.89	25
DATA ENTRY KEYERS, EXCEPT COMPOSING	30	0.45	22
SWITCHBOARD OPERATORS	10	0.15	39
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	290	4.32	19
ORDER FILLERS, WHOLESALE AND RETAIL SALES	200	2.98	24
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	290	4.32	21
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	80	1.19	42
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	40	0.60	N/A
SERVICE OCCUPATIONS	10	0.15	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,700	25.30	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	60	0.89	35
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	20	0.30	45

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
HARDWARE,PLUMBING,& HEATING EQUIPMENT
SIC = 507
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
HEATING, A/C & REFRIG MECHANICS & INSTALLERS	280	4.17	35
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	220	3.27	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	70	1.04	N/A
ALL OTHER PRECISION WORKERS	150	2.23	N/A
ALL OTHER HAND WORKERS	160	2.38	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	190	2.83	28
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	190	2.83	23
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	260	3.87	32
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	110	1.64	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MACHINERY,EQUIPMENT AND SUPPLIES
SIC = 508
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	35,520	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	3,160	8.90	N/A
FINANCIAL MANAGERS	80	0.23	41
PURCHASING MANAGERS	310	0.87	36
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	220	0.62	45
GENERAL MANAGERS AND TOP EXECUTIVES	1,900	5.35	16
ALL OTHER MANAGERS AND ADMINISTRATORS	650	1.83	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	3,490	9.83	N/A
ACCOUNTANTS AND AUDITORS	250	0.70	33
ALL OTHER FINANCIAL SPECIALISTS	20	0.06	N/A
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	150	0.42	48
ALL OTHER MANAGEMENT SUPPORT WORKERS	130	0.37	N/A
ALL OTHER ENGINEERS	800	2.25	N/A
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	1,140	3.21	42
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	130	0.37	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	270	0.76	18
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	610	1.72	N/A
SALES AND RELATED OCCUPATIONS	11,240	31.64	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	1,350	3.80	29
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	4,970	13.99	26
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	3,230	9.09	22
SALESPERSONS, RETAIL	900	2.53	39
SALESPERSONS, PARTS	500	1.41	43
ALL OTHER SALES AND RELATED WORKERS	290	0.82	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	8,820	24.83	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	770	2.17	24
CREDIT CHECKERS	20	0.06	N/A
SECRETARIES	1,740	4.90	18
RECEPTIONIST AND INFORMATION CLERKS	170	0.48	51
TYPISTS	250	0.70	49
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	20	0.06	47
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	790	2.22	31
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	1,010	2.84	21
GENERAL OFFICE CLERKS	1,060	2.98	32
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	180	0.51	40
SWITCHBOARD OPERATORS	100	0.28	34
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	540	1.52	25
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	780	2.20	35
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	1,390	3.91	N/A
SERVICE OCCUPATIONS	160	0.45	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MACHINERY, EQUIPMENT AND SUPPLIES
SIC = 508
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	8,660	24.38	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	380	1.07	32
ALL OTHER INSPECTORS, TESTERS & OTHER RELATED	80	0.23	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	380	1.07	44
DATA PROCESSING EQUIPMENT REPAIRERS	2,490	7.01	36
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	1,870	5.26	N/A
ALL OTHER PRECISION WORKERS	1,260	3.55	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	360	1.01	42
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	850	2.39	N/A
ALL OTHER HELPERS, LABORERS, MAT'L MOVERS HAND	1,000	2.82	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS DURABLE GOODS
SIC = 509
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	3,560	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	440	12.36	N/A
PURCHASING MANAGERS	60	1.69	29
GENERAL MANAGERS AND TOP EXECUTIVES	370	10.39	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	70	1.97	N/A
ACCOUNTANTS AND AUDITORS	20	0.56	39
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	30	0.84	35
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	20	0.56	N/A
SALES AND RELATED OCCUPATIONS	600	16.85	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	100	2.81	24
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	130	3.65	25
SALESPERSONS, RETAIL	190	5.34	30
SALESPERSONS, PARTS	60	1.69	37
ALL OTHER SALES AND RELATED WORKERS	130	3.65	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	840	23.60	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	40	1.12	37
SECRETARIES	110	3.09	20
RECEPTIONIST AND INFORMATION CLERKS	20	0.56	38
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	130	3.65	15
BILLING, COST AND RATE CLERKS	10	0.28	42
GENERAL OFFICE CLERKS	170	4.78	17
BILLING, POSTING, CALCULATING MACH. OPERATORS	10	0.28	47
SWITCHBOARD OPERATORS	10	0.28	47
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	140	3.93	35
ORDER FILLERS, WHOLESALE AND RETAIL SALES	60	1.69	46
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	70	1.97	22
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	60	1.69	N/A
SERVICE OCCUPATIONS	50	1.40	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	50	1.40	37
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,570	44.10	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	80	2.25	24
MAINTENANCE REPAIRERS, GENERAL UTILITY	50	1.40	24
AUTOMOTIVE MECHANICS	40	1.12	47
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	10	0.28	32
MOBILE HEAVY EQUIP MECHANICS, EXCEPT ENGINES	30	0.84	31
HEATING, A/C & REFRIG MECHANICS & INSTALLERS	10	0.28	35
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	90	2.53	N/A
ALL OTHER PRECISION WORKERS	100	2.81	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	40	1.12	83
WELDERS AND CUTTERS	70	1.97	23

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

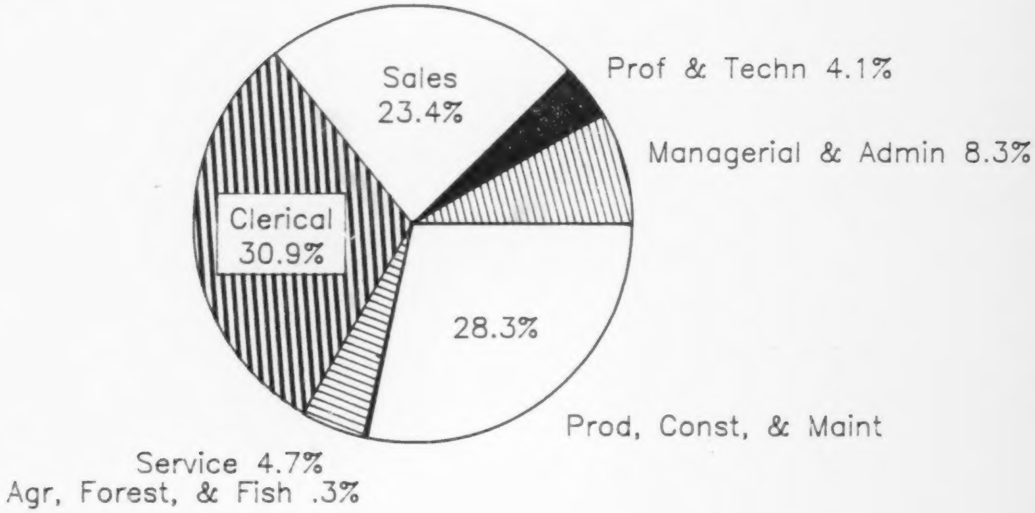
TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS DURABLE GOODS
SIC = 509
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	190	5.34	15
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	150	4.21	21
CRANE AND TOWER OPERATORS	100	2.81	25
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	80	2.25	28
CONVEYOR OPERATORS AND TENDERS	50	1.40	24
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	290	8.15	20
HAND PACKERS AND PACKAGERS	100	2.81	45
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	110	3.09	36

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Wholesale Trade Nondurable Goods (SIC 51)

Distribution of Employment by Major Occupation Category



Ranked Occupational Employment

1.	Other Sales Representatives, except Retail	7260
2.	Truck Drivers, Light - Inc. Delivery & Route Wkrs	3540
3.	General Managers and Top Executives	3320
4.	Freight, Stock, and Material Movers, Hand	2890
5.	Truck Drivers, Heavy or Tractor Trailer	2630
6.	General Office Clerks	2500
7.	Traffic, Shipping, and Receiving Clerks	2400
8.	Salespersons, Retail	2380
9.	Order Fillers, Wholesale and Retail Sales	2370
10.	Hand Packers and Packagers	2240

The major group wholesale trade nondurable goods increased in employment by 2.7 percent, or 1,740, over its 1982 level of 63,250. Groceries and related products, SIC 514, accounts for more than one out of three jobs in the industry.

The clerical and production and maintenance worker occupational categories make up 59 percent of group employment. The clerical area is dominated by office personnel and shipping and receiving occupations. Delivery workers, order fillers and truck drivers make up the majority of the production and maintenance category. The leading specific occupation is that of sales representative, except retail, providing employment for 7,260 persons, or over 11 percent of the entire industry.

TABLE
OCCUPATIONS OF EMPLOYEES
WHOLESALE TRADE NONDURABLE GOODS
SIC = 51
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	65,070	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	5,400	8.30	N/A
FINANCIAL MANAGERS	160	0.25	21
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	60	0.09	12
PURCHASING MANAGERS	650	1.00	20
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	370	0.57	32
ADMINISTRATIVE SERVICES MANAGERS	30	0.05	22
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	230	0.35	17
FOOD SERVICE AND LODGING MANAGERS	10	0.02	16
GENERAL MANAGERS AND TOP EXECUTIVES	3,320	5.10	8
ALL OTHER MANAGERS AND ADMINISTRATORS	570	0.88	32
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	2,680	4.12	N/A
ACCOUNTANTS AND AUDITORS	520	0.80	10
ALL OTHER FINANCIAL SPECIALISTS	60	0.09	N/A
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	540	0.83	18
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	30	0.05	27
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	30	0.05	31
ALL OTHER MANAGEMENT SUPPORT WORKERS	50	0.08	N/A
ELECTRICAL AND ELECTRONIC ENGINEERS	10	0.02	27
MECHANICAL ENGINEERS	20	0.03	22
ALL OTHER ENGINEERS	20	0.03	16
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	60	0.09	48
DRAFTERS	10	0.02	20
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	50	0.08	N/A
PHYSICAL SCIENTISTS	40	0.06	31
LIFE SCIENTISTS	10	0.02	26
PHYSICAL, LIFE SCIENCE TECHNICIAN & TECHNOL.	50	0.08	42
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	70	0.11	40
COMPUTER PROGRAMMERS	300	0.46	20
COMPUTER PROGRAMMER AIDES	70	0.11	26
PHARMACISTS	30	0.05	41
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	40	0.06	N/A
WRITERS AND EDITORS	10	0.02	30
ARTISTS AND RELATED WORKERS	90	0.14	30
MERCHANDISE DISPLAYERS & WINDOW TRIMMERS	40	0.06	22
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	530	0.81	N/A
SALES AND RELATED OCCUPATIONS	15,200	23.36	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	1,680	2.58	10
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	1,780	2.74	19
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	7,260	11.16	8

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
WHOLESALE TRADE NONDURABLE GOODS
SIC = 51
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SALESPERSONS, RETAIL	2,380	3.66	20
SALESPERSONS, PARTS	20	0.03	28
STOCK CLERKS, SALES FLOOR	1,120	1.72	21
CASHIERS	720	1.11	15
NEWS-STREET VENDOR,PHONE SOLICIT,DOOR TO DOOR	10	0.02	44
DEMONSTRATORS, PROMOTERS, AND MODELS	70	0.11	41
ALL OTHER SALES AND RELATED WORKERS	150	0.23	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	20,110	30.91	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	1,810	2.78	9
CREDIT AUTHORIZERS	50	0.08	15
CREDIT CHECKERS	50	0.08	17
ADJUSTMENT CLERKS	280	0.43	20
BILL AND ACCOUNT COLLECTORS	60	0.09	25
SECRETARIES	1,840	2.83	9
RECEPTIONIST AND INFORMATION CLERKS	310	0.48	11
TYPISTS	150	0.23	26
TYPISTS, WORD PROCESSING EQUIPMENT	90	0.14	39
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	50	0.08	14
CORRESPONDENCE CLERKS	10	0.02	24
FILE CLERKS	90	0.14	14
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	1,430	2.20	15
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	2,160	3.32	10
PAYROLL AND TIMEKEEPING CLERKS	60	0.09	30
BILLING, COST AND RATE CLERKS	590	0.91	17
GENERAL OFFICE CLERKS	2,500	3.84	11
BILLING, POSTING, CALCULATING MACH. OPERATORS	370	0.57	23
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	380	0.58	15
DATA ENTRY KEYERS, EXCEPT COMPOSING	670	1.03	19
ALL OTHER OFFICE MACHINE OPERATORS	30	0.05	N/A
SWITCHBOARD OPERATORS	170	0.26	10
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	50	0.08	45
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	50	0.08	16
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS	170	0.26	47
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	1,480	2.27	19
ORDER FILLERS, WHOLESALE AND RETAIL SALES	2,370	3.64	12
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	2,400	3.69	12
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	210	0.32	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	260	0.40	N/A
SERVICE OCCUPATIONS	3,080	4.73	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	110	0.17	21

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
WHOLESALE TRADE NONDURABLE GOODS
SIC = 51
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
DETECTIVES AND INVESTIGATORS, EXCEPT PUBLIC	10	0.02	20
BARTENDERS	50	0.08	17
WAITERS AND WAITRESSES	190	0.29	41
DINING ROOM, CAFETERIA ATTENDANTS,BAR HELPERS	20	0.03	18
COUNTER ATTENDANTS-LUNCHROOM,COFFEE SHOP, ETC	90	0.14	20
BUTCHERS AND MEAT CUTTERS	1,050	1.61	32
COOKS, INSTITUTION OR CAFETERIA	10	0.02	16
FOOD PREPARATION WORKERS	400	0.61	45
ALL OTHER FOOD SERVICE WORKERS	710	1.09	58
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	390	0.60	13
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	50	0.08	N/A
ALL OTHER SERVICE WORKERS	10	0.02	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	200	0.31	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	18,400	28.28	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	300	0.46	17
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	190	0.29	47
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	100	0.15	41
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	10	0.02	N/A
MACHINERY MAINTENANCE MECHANICS	100	0.15	17
MAINTENANCE REPAIRERS, GENERAL UTILITY	320	0.49	16
AUTOMOTIVE MECHANICS	100	0.15	28
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	230	0.35	17
MOBILE HEAVY EQUIP MECHANICS, EXCEPT ENGINES	10	0.02	49
HEATING, A/C & REFRIG MECHANICS & INSTALLERS	150	0.23	19
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	80	0.12	N/A
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	10	0.02	49
ALL OTHER CONSTRUCTION TRADES WORKERS	80	0.12	N/A
MACHINISTS	130	0.20	37
CUSTOM TAILORS AND SEWERS	80	0.12	43
ALL OTHER PRECISION WORKERS	180	0.28	N/A
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	200	0.31	47
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	40	0.06	24
ALL OTHER MACHINE OPERATORS AND TENDERS	1,030	1.58	N/A
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	20	0.03	48
ALL OTHER HAND WORKERS	1,020	1.57	N/A
PLANT AND SYSTEM OCCUPATIONS	20	0.03	31
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	2,630	4.04	10
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	3,540	5.44	11
DRIVER/SALES WORKERS	550	0.85	32
SERVICE STATION ATTENDANTS	610	0.94	21

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
WHOLESALE TRADE NONDURABLE GOODS
SIC = 51
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER TRANSPORTATION AND RELATED WORKERS	120	0.18	35
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	430	0.66	14
CONVEYOR OPERATORS AND TENDERS	100	0.15	40
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	50	0.08	40
MECHANIC AND REPAIRER HELPERS	50	0.08	13
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	2,890	4.44	11
HAND PACKERS AND PACKAGERS	2,240	3.44	19
VEHICLE WASHERS AND EQUIPMENT CLEANERS	10	0.02	35
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	820	1.26	18

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PAPER AND PAPER PRODUCTS
SIC = 511
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	6,470	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	510	7.88	N/A
FINANCIAL MANAGERS	20	0.31	23
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.15	22
PURCHASING MANAGERS	50	0.77	48
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	40	0.62	33
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	20	0.31	26
GENERAL MANAGERS AND TOP EXECUTIVES	320	4.95	14
ALL OTHER MANAGERS AND ADMINISTRATORS	60	0.93	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	260	4.02	N/A
ACCOUNTANTS AND AUDITORS	60	0.93	34
ALL OTHER FINANCIAL SPECIALISTS	10	0.15	36
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	80	1.24	21
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.15	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.15	N/A
ALL OTHER ENGINEERS	20	0.31	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	20	0.31	N/A
COMPUTER PROGRAMMERS	20	0.31	22
COMPUTER PROGRAMMER AIDES	10	0.15	13
SALES AND RELATED OCCUPATIONS	2,230	34.47	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	190	2.94	27
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	1,340	20.71	14
SALESPERSONS, RETAIL	190	2.94	41
STOCK CLERKS, SALES FLOOR	340	5.26	31
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	2,070	31.99	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	180	2.78	20
CREDIT AUTHORIZERS	10	0.15	29
ADJUSTMENT CLERKS	30	0.46	32
BILL AND ACCOUNT COLLECTORS	10	0.15	17
SECRETARIES	230	3.55	23
RECEPTIONIST AND INFORMATION CLERKS	50	0.77	18
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.15	34
CORRESPONDENCE CLERKS	0	0.00	25
FILE CLERKS	10	0.15	10
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	250	3.86	16
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	250	3.86	16
PAYROLL AND TIMEKEEPING CLERKS	10	0.15	N/A
BILLING, COST AND RATE CLERKS	70	1.08	32
GENERAL OFFICE CLERKS	170	2.63	22
BILLING, POSTING, CALCULATING MACH. OPERATORS	30	0.46	50

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PAPER AND PAPER PRODUCTS
SIC = 511
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	40	0.62	21
DATA ENTRY KEYERS, EXCEPT COMPOSING	70	1.08	24
SWITCHBOARD OPERATORS	30	0.46	21
STOCK CLERKS-STOCKROOM, WAREHOUSE STORAGE YARD	170	2.63	22
ORDER FILLERS, WHOLESALE AND RETAIL SALES	240	3.71	32
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	140	2.16	23
SERVICE OCCUPATIONS	30	0.46	N/A
GUARDS AND WATCH GUARDS	10	0.15	14
JANITORS, CLEANERS, EXCEPT MAIDS, HOUSE CLEANERS	10	0.15	32
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.15	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,360	21.02	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.15	32
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS	10	0.15	35
MACHINERY MAINTENANCE MECHANICS	20	0.31	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	20	0.31	25
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	50	0.77	N/A
ALL OTHER PRECISION WORKERS	170	2.63	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	130	2.01	N/A
ASSEMB.& FABR.-EXCEPT ELEC, ELECTRONIC, PRECIS.	10	0.15	39
ALL OTHER HAND WORKERS	70	1.08	N/A
PLANT AND SYSTEM OCCUPATIONS	10	0.15	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	200	3.09	27
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	160	2.47	22
MECHANIC AND REPAIRER HELPERS	20	0.31	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	120	1.85	39
HAND PACKERS AND PACKAGERS	110	1.70	29
ALL OTHER HELPERS, LABORERS, MAT'L MOVERS HAND	260	4.02	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
DRUGS,PROPRIETARIES, AND SUNDRIES
SIC = 512
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	3,940	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	240	6.09	N/A
FINANCIAL MANAGERS	10	0.25	N/A
PURCHASING MANAGERS	30	0.76	26
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.25	9
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	10	0.25	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	110	2.79	17
ALL OTHER MANAGERS AND ADMINISTRATORS	90	2.28	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	230	5.84	N/A
ACCOUNTANTS AND AUDITORS	30	0.76	36
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	40	1.02	11
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.25	32
MECHANICAL ENGINEERS	10	0.25	20
PHYSICAL SCIENTISTS	20	0.51	45
LIFE SCIENTISTS	10	0.25	29
PHYSICAL, LIFE SCIENCE TECHNICIAN & TECHNOL.	10	0.25	19
COMPUTER PROGRAMMERS	20	0.51	5
COMPUTER PROGRAMMER AIDES	10	0.25	N/A
PHARMACISTS	30	0.76	41
ARTISTS AND RELATED WORKERS	10	0.25	29
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	50	1.27	N/A
SALES AND RELATED OCCUPATIONS	1,640	41.62	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	140	3.55	21
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	640	16.24	21
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	450	11.42	19
SALESPERSONS, RETAIL	120	3.05	24
STOCK CLERKS, SALES FLOOR	150	3.81	27
CASHIERS	70	1.78	24
DEMONSTRATORS, PROMOTERS, AND MODELS	60	1.52	47
ALL OTHER SALES AND RELATED WORKERS	10	0.25	33
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,340	34.01	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	30	0.76	36
ADJUSTMENT CLERKS	10	0.25	20
BILL AND ACCOUNT COLLECTORS	10	0.25	16
SECRETARIES	110	2.79	20
RECEPTIONIST AND INFORMATION CLERKS	20	0.51	26
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.25	N/A
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	70	1.78	14
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	110	2.79	19
BILLING, COST AND RATE CLERKS	10	0.25	47

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
DRUGS, PROPRIETARIES, AND SUNDRIES
SIC = 512
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
GENERAL OFFICE CLERKS	80	2.03	14
BILLING, POSTING, CALCULATING MACH. OPERATORS	30	0.76	43
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	40	1.02	15
DATA ENTRY KEYERS, EXCEPT COMPOSING	40	1.02	17
SWITCHBOARD OPERATORS	10	0.25	40
STOCK CLERKS-STOCKROOM, WAREHOUSE STORAGE YARD	120	3.05	16
ORDER FILLERS, WHOLESALE AND RETAIL SALES	460	11.68	11
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	120	3.05	10
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	60	1.52	25
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	40	1.02	N/A
SERVICE OCCUPATIONS	40	1.02	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.25	27
DETECTIVES AND INVESTIGATORS, EXCEPT PUBLIC	10	0.25	25
JANITORS, CLEANERS, EXCEPT MAIDS, HOUSE CLEANERS	10	0.25	18
ALL OTHER SERVICE WORKERS	10	0.25	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	450	11.42	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	20	0.51	20
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS	10	0.25	19
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.25	47
MACHINISTS	30	0.76	28
ALL OTHER PRECISION WORKERS	40	1.02	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	10	0.25	25
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	10	0.25	14
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	170	4.31	27
DRIVER/SALES WORKERS	40	1.02	28
CONVEYOR OPERATORS AND TENDERS	10	0.25	25
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	10	0.25	33
HAND PACKERS AND PACKAGERS	90	2.28	24

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
GROCERIES AND RELATED PRODUCTS
SIC = 514
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	22,840	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,570	6.87	N/A
FINANCIAL MANAGERS	60	0.26	22
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.09	14
PURCHASING MANAGERS	260	1.14	41
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	50	0.22	20
ADMINISTRATIVE SERVICES MANAGERS	10	0.04	28
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	70	0.31	33
FOOD SERVICE AND LODGING MANAGERS	10	0.04	16
GENERAL MANAGERS AND TOP EXECUTIVES	990	4.33	15
ALL OTHER MANAGERS AND ADMINISTRATORS	110	0.48	23
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	730	3.20	N/A
ACCOUNTANTS AND AUDITORS	150	0.66	15
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	260	1.14	33
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	10	0.04	38
ALL OTHER MANAGEMENT SUPPORT WORKERS	90	0.39	N/A
MECHANICAL ENGINEERS	10	0.04	43
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	40	0.18	47
COMPUTER PROGRAMMERS	130	0.57	40
COMPUTER PROGRAMMER AIDES	20	0.09	42
ARTISTS AND RELATED WORKERS	10	0.04	20
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	30	0.13	N/A
SALES AND RELATED OCCUPATIONS	4,860	21.28	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	770	3.37	18
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	2,250	9.85	16
SALESPERSONS, RETAIL	770	3.37	44
STOCK CLERKS, SALES FLOOR	450	1.97	45
CASHIERS	330	1.44	25
ALL OTHER SALES AND RELATED WORKERS	290	1.27	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	5,390	23.60	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	300	1.31	24
CREDIT AUTHORIZERS	10	0.04	36
CREDIT CHECKERS	10	0.04	36
ADJUSTMENT CLERKS	60	0.26	36
BILL AND ACCOUNT COLLECTORS	10	0.04	24
SECRETARIES	540	2.36	20
RECEPTIONIST AND INFORMATION CLERKS	80	0.35	24
TYPISTS	10	0.04	42
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.04	27
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.04	20

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
GROCERIES AND RELATED PRODUCTS
SIC = 514
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
FILE CLERKS	10	0.04	18
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	280	1.23	28
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	710	3.11	18
PAYROLL AND TIMEKEEPING CLERKS	30	0.13	13
BILLING, COST AND RATE CLERKS	220	0.96	28
GENERAL OFFICE CLERKS	890	3.90	22
BILLING, POSTING, CALCULATING MACH. OPERATORS	180	0.79	42
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	120	0.53	23
DATA ENTRY KEYERS, EXCEPT COMPOSING	150	0.66	38
ALL OTHER OFFICE MACHINE OPERATORS	10	0.04	46
SWITCHBOARD OPERATORS	40	0.18	17
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	20	0.09	37
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	10	0.04	N/A
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS	50	0.22	21
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	450	1.97	43
ORDER FILLERS, WHOLESALE AND RETAIL SALES	570	2.50	35
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	550	2.41	23
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	40	0.18	N/A
SERVICE OCCUPATIONS	2,620	11.47	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	40	0.18	26
BARTENDERS	50	0.22	17
WAITERS AND WAITRESSES	150	0.66	46
DINING ROOM, CAFETERIA ATTENDANTS,BAR HELPERS	20	0.09	18
COUNTER ATTENDANTS-LUNCHROOM,COFFEE SHOP, ETC	80	0.35	17
BAKERS, BREAD AND PASTRY	20	0.09	83
BUTCHERS AND MEAT CUTTERS	1,050	4.60	32
COOKS, INSTITUTION OR CAFETERIA	10	0.04	16
FOOD PREPARATION WORKERS	400	1.75	45
ALL OTHER FOOD SERVICE WORKERS	670	2.93	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	140	0.61	26
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	7,680	33.63	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	90	0.39	30
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	60	0.26	29
PRODUCTION INSPECTORS,TESTERS,GRADERS,SORTERS	30	0.13	40
MACHINERY MAINTENANCE MECHANICS	60	0.26	21
MAINTENANCE REPAIRERS, GENERAL UTILITY	130	0.57	24
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	140	0.61	24
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	90	0.39	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	20	0.09	N/A
PACKAGING,FILLING MACHINE OPERATORS & TENDERS	110	0.48	37

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
GROCERIES AND RELATED PRODUCTS
SIC = 514
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER MACHINE OPERATORS AND TENDERS	20	0.09	N/A
ALL OTHER HAND WORKERS	220	0.96	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	1,280	5.60	18
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	1,650	7.22	21
DRIVER/SALES WORKERS	480	2.10	36
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	200	0.88	19
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	110	0.48	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	1,190	5.21	21
HAND PACKERS AND PACKAGERS	1,520	6.65	26
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	300	1.31	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
CHEMICAL AND ALLIED PRODUCTS
SIC = 516
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	3,430	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	360	10.50	N/A
PURCHASING MANAGERS	50	1.46	34
GENERAL MANAGERS AND TOP EXECUTIVES	220	6.41	13
ALL OTHER MANAGERS AND ADMINISTRATORS	90	2.62	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	210	6.12	N/A
ACCOUNTANTS AND AUDITORS	50	1.46	24
ALL OTHER MANAGEMENT SUPPORT WORKERS	40	1.17	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	80	2.33	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	40	1.17	N/A
SALES AND RELATED OCCUPATIONS	1,070	31.20	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	110	3.21	22
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	550	16.03	26
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	370	10.79	22
ALL OTHER SALES AND RELATED WORKERS	40	1.17	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	930	27.11	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	100	2.92	21
SECRETARIES	180	5.25	17
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	100	2.92	26
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	70	2.04	20
GENERAL OFFICE CLERKS	130	3.79	28
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	140	4.08	25
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	210	6.12	N/A
SERVICE OCCUPATIONS	50	1.46	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	810	23.62	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	30	0.87	38
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	50	1.46	N/A
ALL OTHER PRECISION WORKERS	40	1.17	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	60	1.75	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	240	7.00	19
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	120	3.50	27
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	280	8.16	N/A

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PETROLEUM AND PETROLEUM PRODUCTS
SIC = 517
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,920	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	260	8.90	N/A
FINANCIAL MANAGERS	10	0.34	25
PURCHASING MANAGERS	20	0.68	20
GENERAL MANAGERS AND TOP EXECUTIVES	130	4.45	12
ALL OTHER MANAGERS AND ADMINISTRATORS	110	3.77	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	110	3.77	N/A
ACCOUNTANTS AND AUDITORS	40	1.37	15
ALL OTHER FINANCIAL SPECIALISTS	10	0.34	N/A
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	20	0.68	32
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.34	N/A
COMPUTER PROGRAMMERS	10	0.34	20
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	30	1.03	N/A
SALES AND RELATED OCCUPATIONS	480	16.44	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	40	1.37	16
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	30	1.03	36
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	180	6.16	12
SALESPERSONS, RETAIL	30	1.03	33
SALESPERSONS, PARTS	10	0.34	28
STOCK CLERKS, SALES FLOOR	30	1.03	49
CASHIERS	160	5.48	9
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	640	21.92	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	100	3.42	20
CREDIT CHECKERS	20	0.68	34
SECRETARIES	70	2.40	14
RECEPTIONIST AND INFORMATION CLERKS	30	1.03	38
TYPISTS	10	0.34	44
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	30	1.03	26
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	110	3.77	12
BILLING, COST AND RATE CLERKS	20	0.68	20
GENERAL OFFICE CLERKS	100	3.42	19
BILLING, POSTING, CALCULATING MACH. OPERATORS	20	0.68	24
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	20	0.68	17
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.68	18
SWITCHBOARD OPERATORS	10	0.34	19
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	10	0.34	35
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	20	0.68	26
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.34	39
ORDER FILLERS, WHOLESALE AND RETAIL SALES	10	0.34	44
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	20	0.68	29

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PETROLEUM AND PETROLEUM PRODUCTS
SIC = 517
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	30	1.03	N/A
SERVICE OCCUPATIONS	20	0.68	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	20	0.68	37
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,420	48.63	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	40	1.37	14
AUTOMOTIVE MECHANICS	10	0.34	38
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	30	1.03	19
MOBILE HEAVY EQUIP MECHANICS, EXCEPT ENGINES	10	0.34	49
HEATING, A/C & REFRIG MECHANICS & INSTALLERS	150	5.14	19
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	20	0.68	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	250	8.56	11
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	80	2.74	24
SERVICE STATION ATTENDANTS	590	20.21	22
ALL OTHER TRANSPORTATION AND RELATED WORKERS	50	1.71	N/A
MECHANIC AND REPAIRER HELPERS	20	0.68	31
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	130	4.45	46
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	20	0.68	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
BEER, WINE, AND DISTILLED BEVERAGES
SIC = 518
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,540	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	390	8.59	N/A
FINANCIAL MANAGERS	20	0.44	8
PURCHASING MANAGERS	10	0.22	27
ADMINISTRATIVE SERVICES MANAGERS	10	0.22	33
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	30	0.66	18
GENERAL MANAGERS AND TOP EXECUTIVES	150	3.30	11
ALL OTHER MANAGERS AND ADMINISTRATORS	170	3.74	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	140	3.08	N/A
ACCOUNTANTS AND AUDITORS	20	0.44	21
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	10	0.22	16
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.22	N/A
PHYSICAL, LIFE SCIENCE TECHNICIAN & TECHNOL.	10	0.22	14
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.22	25
COMPUTER PROGRAMMERS	20	0.44	17
COMPUTER PROGRAMMER AIDES	10	0.22	31
MERCHANDISE DISPLAYERS & WINDOW TRIMMERS	40	0.88	22
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	10	0.22	N/A
SALES AND RELATED OCCUPATIONS	900	19.82	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	120	2.64	17
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	720	15.86	13
CASHIERS	10	0.22	14
DEMONSTRATORS, PROMOTERS, AND MODELS	10	0.22	28
ALL OTHER SALES AND RELATED WORKERS	50	1.10	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	940	20.70	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	60	1.32	16
CREDIT AUTHORIZERS	20	0.44	21
CREDIT CHECKERS	10	0.22	25
BILL AND ACCOUNT COLLECTORS	10	0.22	40
SECRETARIES	50	1.10	5
RECEPTIONIST AND INFORMATION CLERKS	20	0.44	42
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	60	1.32	15
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	90	1.98	17
BILLING, COST AND RATE CLERKS	20	0.44	34
GENERAL OFFICE CLERKS	110	2.42	17
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	30	0.66	17
DATA ENTRY KEYERS, EXCEPT COMPOSING	30	0.66	13
SWITCHBOARD OPERATORS	20	0.44	7
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	10	0.22	24
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	100	2.20	23

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
BEER, WINE, AND DISTILLED BEVERAGES
SIC = 518
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ORDER FILLERS, WHOLESALE AND RETAIL SALES	160	3.52	34
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	90	1.98	26
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	80	1.76	N/A
SERVICE OCCUPATIONS	50	1.10	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	20	0.44	37
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	30	0.66	17
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.22	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,120	46.70	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	20	0.44	43
AUTOMOTIVE MECHANICS	20	0.44	22
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	20	0.44	19
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	30	0.66	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	40	0.88	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	440	9.69	17
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	690	15.20	16
DRIVER/SALES WORKERS	30	0.66	26
ALL OTHER TRANSPORTATION AND RELATED WORKERS	70	1.54	48
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	120	2.64	16
CONVEYOR OPERATORS AND TENDERS	10	0.22	18
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	570	12.56	14
HAND PACKERS AND PACKAGERS	40	0.88	50
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	40	0.88	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS NONDURABLE GOODS
SIC = 519
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	10,420	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	670	6.43	N/A
FINANCIAL MANAGERS	20	0.19	23
PURCHASING MANAGERS	60	0.58	32
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	20	0.19	34
GENERAL MANAGERS AND TOP EXECUTIVES	520	4.99	13
ALL OTHER MANAGERS AND ADMINISTRATORS	50	0.48	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	330	3.17	N/A
ACCOUNTANTS AND AUDITORS	70	0.67	37
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	50	0.48	30
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.10	N/A
COMPUTER PROGRAMMERS	30	0.29	31
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	160	1.54	N/A
SALES AND RELATED OCCUPATIONS	2,640	25.34	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	220	2.11	27
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	1,270	12.19	18
SALESPERSONS, RETAIL	680	6.53	22
STOCK CLERKS, SALES FLOOR	130	1.25	38
ALL OTHER SALES AND RELATED WORKERS	340	3.26	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	4,670	44.82	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	670	6.43	17
ADJUSTMENT CLERKS	40	0.38	33
BILL AND ACCOUNT COLLECTORS	10	0.10	47
SECRETARIES	360	3.45	19
RECEPTIONIST AND INFORMATION CLERKS	40	0.38	32
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.10	49
CORRESPONDENCE CLERKS	10	0.10	60
FILE CLERKS	10	0.10	26
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	220	2.11	23
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	450	4.32	14
PAYROLL AND TIMEKEEPING CLERKS	10	0.10	28
GENERAL OFFICE CLERKS	790	7.58	19
BILLING, POSTING, CALCULATING MACH. OPERATORS	70	0.67	42
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	30	0.29	20
DATA ENTRY KEYERS, EXCEPT COMPOSING	160	1.54	28
SWITCHBOARD OPERATORS	20	0.19	16
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	210	2.02	28
ORDER FILLERS, WHOLESALE AND RETAIL SALES	580	5.57	16
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	870	8.35	20
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	10	0.10	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS NONDURABLE GOODS
SIC = 519
REFERENCE DATE JUNE, 1985

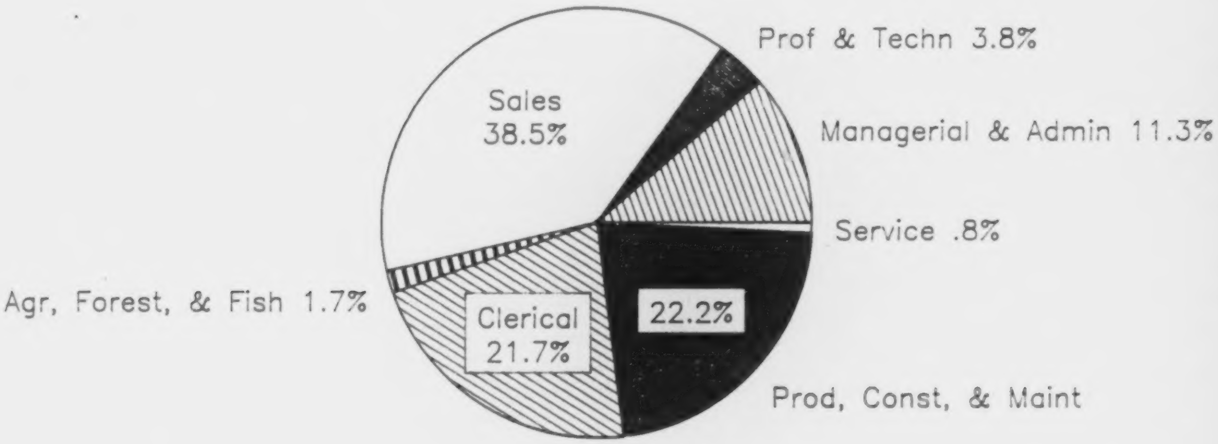
OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	120	1.15	N/A
SERVICE OCCUPATIONS	110	1.06	N/A
ALL OTHER FOOD SERVICE WORKERS	90	0.86	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	30	0.29	20
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	200	1.92	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,810	17.37	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	10	0.10	40
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	0.29	29
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	40	0.38	N/A
ALL OTHER PRECISION WORKERS	30	0.29	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	40	0.38	N/A
ALL OTHER HAND WORKERS	260	2.50	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	210	2.02	45
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	660	6.33	19
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	60	0.58	N/A
MECHANIC AND REPAIRER HELPERS	10	0.10	41
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	250	2.40	20
HAND PACKERS AND PACKAGERS	190	1.82	26
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	40	0.38	35

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Building Materials & Garden Supplies (SIC 52)

Distribution of Employment by Major Occupation Category



Ranked Occupational Employment

1.	Salespersons, Retail	3881
2.	General Managers and Top Executives	1650
3.	Stock Clerks, Sales Floor	1180
4.	Cashiers	1090
5.	Stock Clerks - Stockroom, Warehouse, & Storage Yard	1050
6.	Bookkeeping, Accounting, & Auditing Clerks	950
7.	Truck Drivers, Heavy or Tractor Trailer	720
8.	General Office Clerks	700
9.	Truck Drivers, Light - Inc Delivery & Route Workers	640
10.	Traffic, Shipping, and Receiving Clerks	450

The major group, SIC 52, includes retail establishments primarily engaged in selling lumber and other building materials, hardware, garden supplies, nursery stock, and mobile homes. Employment in the group increased by 4110, or 28.3 percent, from a 1982 level of 14,500. All industries in the group shared in the increase.

The sales and related occupations make up over 38 percent of employment. Most of the increase since 1982 has been in the specific occupation retail salesperson, which accounts for 21 percent of total employment. The next most important occupation, general managers and top executives, accounts for close to 9 percent of employment.

This industry is projected to grow in the 20 percent range during the next ten years.

TABLE

OCCUPATIONS OF EMPLOYEES

BUILDING MATERIALS & GARDEN SUPPLIES

SIC = 52

REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %.
TOTAL INDUSTRY EMPLOYMENT	18,530	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	2,100	11.33	N/A
FINANCIAL MANAGERS	20	0.11	15
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.05	10
PURCHASING MANAGERS	330	1.78	14
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	50	0.27	19
ADMINISTRATIVE SERVICES MANAGERS	10	0.05	49
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	20	0.11	47
GENERAL MANAGERS AND TOP EXECUTIVES	1,650	8.90	4
ALL OTHER MANAGERS AND ADMINISTRATORS	30	0.16	17
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	700	3.78	N/A
ACCOUNTANTS AND AUDITORS	140	0.76	14
ALL OTHER FINANCIAL SPECIALISTS	10	0.05	N/A
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	280	1.51	13
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.05	33
ALL OTHER MANAGEMENT SUPPORT WORKERS	60	0.32	N/A
COMPUTER PROGRAMMER AIDES	10	0.05	28
WRITERS AND EDITORS	10	0.05	25
ARTISTS AND RELATED WORKERS	20	0.11	34
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.05	45
INTERIOR DESIGNERS	80	0.43	49
MERCHANDISE DISPLAYERS & WINDOW TRIMMERS	10	0.05	41
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	80	0.43	N/A
SALES AND RELATED OCCUPATIONS	7,140	38.53	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	130	0.70	21
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	410	2.21	30
SALESPERSONS, RETAIL	3,880	20.94	5
COUNTER AND RENTAL CLERKS	390	2.10	21
STOCK CLERKS, SALES FLOOR	1,180	6.37	11
CASHIERS	1,090	5.88	10
ALL OTHER SALES AND RELATED WORKERS	70	0.38	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	4,010	21.64	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	110	0.59	29
CREDIT AUTHORIZERS	10	0.05	44
BILL AND ACCOUNT COLLECTORS	30	0.16	49
SECRETARIES	340	1.83	13
STENOGRAPHERS	10	0.05	49
RECEPTIONIST AND INFORMATION CLERKS	10	0.05	35
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.05	35
FILE CLERKS	10	0.05	33

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
BUILDING MATERIALS & GARDEN SUPPLIES
SIC = 52
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	950	5.13	6
PAYROLL AND TIMEKEEPING CLERKS	10	0.05	28
BILLING, COST AND RATE CLERKS	140	0.76	18
GENERAL OFFICE CLERKS	700	3.78	12
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	70	0.38	21
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.11	32
SWITCHBOARD OPERATORS	20	0.11	19
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	10	0.05	40
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	1,050	5.67	12
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	450	2.43	23
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	20	0.11	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	40	0.22	N/A
SERVICE OCCUPATIONS	150	0.81	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	10	0.05	20
GUARDS AND WATCH GUARDS	70	0.38	31
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	70	0.38	23
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	310	1.67	N/A
NURSERY WORKERS	140	0.76	38
GARDENERS AND GROUNDSKEEPERS, EXCEPT FARM	170	0.92	30
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	4,120	22.23	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	250	1.35	15
MAINTENANCE REPAIRERS, GENERAL UTILITY	190	1.03	45
AUTOMOTIVE MECHANICS	50	0.27	40
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	50	0.27	31
SMALL ENGINE SPECIALISTS	180	0.97	20
INSTALLERS & REPAIRERS-MFG BLDG,HOME,TRAILERS	180	0.97	37
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	170	0.92	N/A
CARPENTERS	70	0.38	46
GLAZIERS	350	1.89	18
ALL OTHER CONSTRUCTION TRADES WORKERS	200	1.[illegible]	N/A
WOOD MACHINISTS	200	1.08	28
ALL OTHER PRECISION WORKERS	10	0.05	N/A
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	240	1.30	29
ALL OTHER HAND WORKERS	30	0.16	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	720	3.89	17
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	640	3.45	13
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	270	1.46	19
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	140	0.76	38
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	190	1.03	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
LUMBER & OTHER BUILDING MATERIALS
SIC = 521
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	10,200	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,000	9.80	N/A
FINANCIAL MANAGERS	20	0.20	22
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.10	17
PURCHASING MANAGERS	120	1.18	23
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	50	0.49	20
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	10	0.10	35
GENERAL MANAGERS AND TOP EXECUTIVES	800	7.84	7
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.10	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	410	4.02	N/A
ACCOUNTANTS AND AUDITORS	70	0.69	23
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	170	1.67	14
ALL OTHER MANAGEMENT SUPPORT WORKERS	60	0.59	N/A
COMPUTER PROGRAMMER AIDES	10	0.10	32
WRITERS AND EDITORS	10	0.10	33
ARTISTS AND RELATED WORKERS	20	0.20	34
MERCHANDISE DISPLAYERS & WINDOW TRIMMERS	10	0.10	49
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	80	0.78	N/A
SALES AND RELATED OCCUPATIONS	3,240	31.76	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	40	0.39	45
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	400	3.92	30
SALESPERSONS, RETAIL	1,550	15.20	8
STOCK CLERKS, SALES FLOOR	600	5.88	18
CASHIERS	550	5.39	16
ALL OTHER SALES AND RELATED WORKERS	100	0.98	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	2,710	26.57	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	80	0.78	39
CREDIT AUTHORIZERS	10	0.10	44
BILL AND ACCOUNT COLLECTORS	30	0.29	49
SECRETARIES	200	1.96	18
STENOGRAPHERS	10	0.10	49
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.10	47
FILE CLERKS	10	0.10	33
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	490	4.80	10
PAYROLL AND TIMEKEEPING CLERKS	10	0.10	33
BILLING, COST AND RATE CLERKS	70	0.69	26
GENERAL OFFICE CLERKS	410	4.02	17
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	40	0.39	31
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.20	32
SWITCHBOARD OPERATORS	20	0.20	19

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
LUMBER & OTHER BUILDING MATERIALS
SIC = 521
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	10	0.10	45
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	10	0.10	69
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	880	8.63	14
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	360	3.53	29
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	20	0.20	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	40	0.39	N/A
SERVICE OCCUPATIONS	120	1.18	N/A
GUARDS AND WATCH GUARDS	70	0.69	31
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	50	0.49	30
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	10	0.10	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,720	26.67	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	130	1.27	23
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	30	0.29	38
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	380	3.73	N/A
CARPENTERS	60	0.59	50
ALL OTHER CONSTRUCTION TRADES WORKERS	130	1.27	N/A
WOOD MACHINISTS	200	1.96	28
ALL OTHER PRECISION WORKERS	10	0.10	N/A
ASSEMB.& FABR.-EXCEPT ELEC,ELECTRONIC,PRECIS.	190	1.86	35
ALL OTHER HAND WORKERS	10	0.10	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	650	6.37	19
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	480	4.71	17
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	250	2.45	19
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	130	1.27	43
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	80	0.78	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
PAINT, GLASS, AND WALLPAPER STORES
SIC = 523
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,060	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	230	11.17	N/A
PURCHASING MANAGERS	50	2.43	25
GENERAL MANAGERS AND TOP EXECUTIVES	180	8.74	11
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	60	2.91	N/A
ACCOUNTANTS AND AUDITORS	10	0.49	50
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	60	2.91	N/A
SALES AND RELATED OCCUPATIONS	830	40.29	N/A
SALESPERSONS, RETAIL	700	33.98	10
STOCK CLERKS, SALES FLOOR	70	3.40	22
CASHIERS	30	1.46	34
ALL OTHER SALES AND RELATED WORKERS	30	1.46	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	270	13.11	N/A
SECRETARIES	30	1.46	32
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	90	4.37	15
BILLING, COST AND RATE CLERKS	10	0.49	24
GENERAL OFFICE CLERKS	110	5.34	16
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	10	0.49	45
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	0.97	N/A
SERVICE OCCUPATIONS	10	0.49	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	10	0.49	49
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	660	32.04	N/A
INSTALLERS & REPAIRERS-MFG BLDG,HOME,TRAILERS	60	2.91	39
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	60	2.91	N/A
GLAZIERS	310	15.05	18
ALL OTHER CONSTRUCTION TRADES WORKERS	90	4.37	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	10	0.49	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	30	1.46	27
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	40	1.94	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
HARDWARE STORES
SIC = 525
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	4,230	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	620	14.66	N/A
FINANCIAL MANAGERS	10	0.24	14
PURCHASING MANAGERS	110	2.60	18
GENERAL MANAGERS AND TOP EXECUTIVES	480	11.35	8
ALL OTHER MANAGERS AND ADMINISTRATORS	30	0.71	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	180	4.26	N/A
ACCOUNTANTS AND AUDITORS	50	1.18	26
ALL OTHER FINANCIAL SPECIALISTS	10	0.24	17
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	80	1.89	30
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.24	N/A
DRAFTERS	10	0.24	45
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	30	0.71	N/A
SALES AND RELATED OCCUPATIONS	2,420	57.21	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	80	1.89	22
SALESPERSONS, RETAIL	1,190	28.13	10
COUNTER AND RENTAL CLERKS	280	6.62	27
STOCK CLERKS, SALES FLOOR	440	10.40	15
CASHIERS	390	9.22	13
ALL OTHER SALES AND RELATED WORKERS	30	0.71	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	730	17.26	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	30	0.71	41
SECRETARIES	60	1.42	23
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	270	6.38	11
BILLING, COST AND RATE CLERKS	70	1.65	29
GENERAL OFFICE CLERKS	100	2.36	30
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	20	0.47	41
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	100	2.36	25
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	80	1.89	21
SERVICE OCCUPATIONS	10	0.24	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	10	0.24	47
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	270	6.38	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	40	0.95	47
SMALL ENGINE SPECIALISTS	40	0.95	44
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	30	0.71	N/A
ALL OTHER HAND WORKERS	40	0.95	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	20	0.47	42
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	60	1.42	39
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	20	0.47	21
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	30	0.71	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

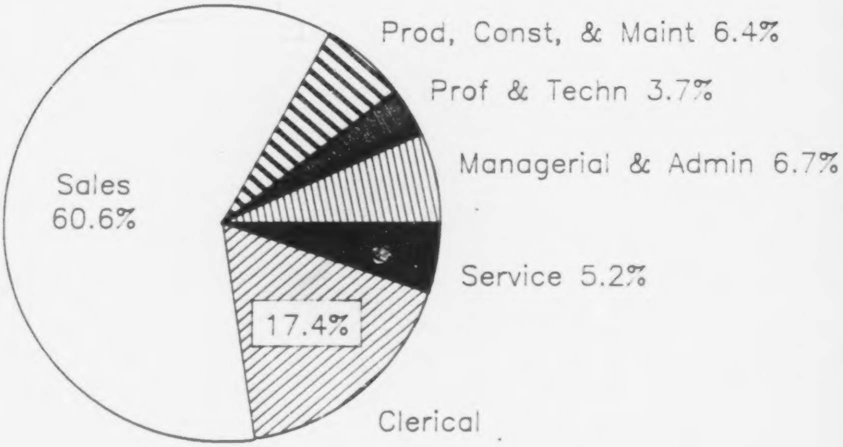
TABLE
OCCUPATIONS OF EMPLOYEES
RETAIL NURSERIES AND GARDEN STORES
SIC = 526
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,970	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	230	11.68	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	180	9.14	9
ALL OTHER MANAGERS AND ADMINISTRATORS	60	3.05	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	40	2.03	N/A
ACCOUNTANTS AND AUDITORS	20	1.02	23
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	20	1.02	N/A
SALES AND RELATED OCCUPATIONS	650	32.99	N/A
SALESPERSONS, RETAIL	420	21.32	7
STOCK CLERKS, SALES FLOOR	70	3.55	17
ALL OTHER SALES AND RELATED WORKERS	150	7.61	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	300	15.23	N/A
SECRETARIES	50	2.54	29
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	90	4.57	17
GENERAL OFFICE CLERKS	70	3.55	33
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	70	3.55	35
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	10	0.51	82
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	1.02	N/A
SERVICE OCCUPATIONS	10	0.51	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	310	15.74	N/A
NURSERY WORKERS	140	7.11	N/A
GARDENERS AND GROUNDSKEEPERS, EXCEPT FARM	160	8.12	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	430	21.83	N/A
SMALL ENGINE SPECIALISTS	130	6.60	23
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	80	4.06	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	50	2.54	35
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	70	3.55	25
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	100	5.08	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

General Merchandise Stores (SIC 53)

Distribution of Employment by Major Occupation Category



Ranked Occupational Employment

1.	Salesperson, Retail	25200
2.	All Other Sales and Related Workers	10170
3.	All Other Clerical & Administrative Support Workers	2130
4.	General Managers and Top Executives	1930
5.	All Other Managers and Administrators	1780
6.	First Line Supervisors and Managers/Supvrs - Sales	1440
7.	Adjustment Clerks	1260
8.	Traffic, Shipping, and Receiving Clerks	1200
9.	All Other Helpers, Laborers, Mat'l Movers Hand	1110
10.	All Other Mechanics, Installers, & Repairers	1020

SIC 53

Included in this major industry group are department stores, variety stores and other general merchandise stores. Department stores command 91 percent of the employment in this group, variety stores 5 percent, and miscellaneous general merchandise stores the remaining 4 percent. Employment in the industry group shows an increase of 8,050, or 15.1 percent, from a 1982 level of 53,440. Department stores contributed most of the new jobs with variety and general merchandise stores sharing the remaining increase.

Sales and clerical jobs make up 78 percent of the occupational structure with the specific title of retail salesperson accounting for 41 percent of the group employment. The industry group is dominated by relatively unskilled jobs and is projected to grow in the 7 percent range between 1984 and 1995.

TABLE
OCCUPATIONS OF EMPLOYEES
GENERAL MERCHANDISE STORES
SIC = 53
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	61,460	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	4,120	6.70	N/A
FINANCIAL MANAGERS	140	0.23	32
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	270	0.44	27
FOOD SERVICE AND LODGING MANAGERS	10	0.02	11
GENERAL MANAGERS AND TOP EXECUTIVES	1,930	3.14	18
ALL OTHER MANAGERS AND ADMINISTRATORS	1,780	2.90	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	2,250	3.66	N/A
ALL OTHER FINANCIAL SPECIALISTS	200	0.33	N/A
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	1,000	1.63	29
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	160	0.26	26
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.03	N/A
DRAFTERS	30	0.05	31
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.02	25
COMPUTER PROGRAMMERS	20	0.03	25
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	20	0.03	N/A
PHOTOGRAPHERS	10	0.02	29
ARTISTS AND RELATED WORKERS	80	0.13	23
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	700	1.14	N/A
SALES AND RELATED OCCUPATIONS	37,240	60.59	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	1,440	2.34	28
SALESPERSONS, RETAIL	25,200	41.00	10
NEWS-STREET VENDOR,PHONE SOLICIT,DOOR TO DOOR	420	0.68	29
DEMONSTRATORS, PROMOTERS, AND MODELS	20	0.03	21
ALL OTHER SALES AND RELATED WORKERS	10,170	16.55	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	10,710	17.43	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	690	1.12	25
CREDIT CHECKERS	130	0.21	30
ADJUSTMENT CLERKS	1,260	2.05	26
SECRETARIES	260	0.42	15
RECEPTIONIST AND INFORMATION CLERKS	10	0.02	29
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	110	0.18	24
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	840	1.37	16
PAYROLL AND TIMEKEEPING CLERKS	70	0.11	13
GENERAL OFFICE CLERKS	950	1.55	31
BILLING, POSTING, CALCULATING MACH. OPERATORS	30	0.05	23
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	50	0.08	21
DATA ENTRY KEYERS, EXCEPT COMPOSING	260	0.42	32
ALL OTHER OFFICE MACHINE OPERATORS	10	0.02	28
SWITCHBOARD OPERATORS	630	1.03	26

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
GENERAL MERCHANDISE STORES
SIC = 53
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SWITCHBOARD OPERATORS	630	1.03	26
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	10	0.02	23
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	130	0.21	35
MARKING CLERKS	680	1.11	23
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	860	1.40	23
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	1,200	1.95	25
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	410	0.67	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	2,130	3.47	N/A
SERVICE OCCUPATIONS	3,210	5.22	N/A
DETECTIVES AND INVESTIGATORS, EXCEPT PUBLIC	490	0.80	32
GUARDS AND WATCH GUARDS	550	0.89	24
HOSTS,HOSTESSES-RESTAURANT,LOUNGE,COFFEE SHOP	20	0.03	30
WAITERS AND WAITRESSES	280	0.46	29
COOKS, RESTAURANT	10	0.02	34
COOKS, SPECIALTY FAST FOOD	10	0.02	28
COOKS, SHORT ORDER	30	0.05	29
FOOD PREPARATION WORKERS	30	0.05	30
ALL OTHER FOOD SERVICE WORKERS	320	0.52	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	790	1.29	13
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	60	0.10	N/A
HAIRDRESSERS, HAIRSTYLISTS, & COSMETOLOGISTS	540	0.88	32
ALL OTHER SERVICE WORKERS	100	0.16	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,920	6.38	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	60	0.10	34
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.02	12
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	90	0.15	N/A
MACHINERY MAINTENANCE MECHANICS	20	0.03	34
MAINTENANCE REPAIRERS, GENERAL UTILITY	460	0.75	27
AUTOMOTIVE MECHANICS	680	1.11	25
WATCHMAKERS	10	0.02	32
BICYCLE REPAIRERS	40	0.07	4
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	1,020	1.66	N/A
CARPENTERS	20	0.03	8
ELECTRICIANS	20	0.03	N/A
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	20	0.03	N/A
ALL OTHER PRECISION WORKERS	230	0.37	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	100	0.16	N/A
ALL OTHER HAND WORKERS	10	0.02	32
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	30	0.05	25
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	1,110	1.81	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
DEPARTMENT STORES
SIC = 531
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	55,710	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	3,650	6.55	N/A
FINANCIAL MANAGERS	130	0.23	33
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	270	0.48	27
FOOD SERVICE AND LODGING MANAGERS	10	0.02	11
GENERAL MANAGERS AND TOP EXECUTIVES	1,530	2.75	22
ALL OTHER MANAGERS AND ADMINISTRATORS	1,710	3.07	56
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	2,150	3.86	N/A
ALL OTHER FINANCIAL SPECIALISTS	190	0.34	N/A
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	920	1.65	31
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	160	0.29	26
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.04	N/A
ALL OTHER ENGINEERS	10	0.02	N/A
DRAFTERS	30	0.05	31
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.02	25
COMPUTER PROGRAMMERS	20	0.04	25
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	20	0.04	N/A
PHOTOGRAPHERS	10	0.02	29
ARTISTS AND RELATED WORKERS	80	0.14	23
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	690	1.24	N/A
SALES AND RELATED OCCUPATIONS	33,100	59.41	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	1,210	2.17	33
SALESPERSONS, RETAIL	23,060	41.39	11
NEWS-STREET VENDOR,PHONE SOLICIT,DOOR TO DOOR	420	0.75	29
DEMONSTRATORS, PROMOTERS, AND MODELS	20	0.04	19
ALL OTHER SALES AND RELATED WORKERS	8,400	15.08	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	10,140	18.20	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	610	1.09	29
CREDIT CHECKERS	130	0.23	30
ADJUSTMENT CLERKS	1,240	2.23	26
SECRETARIES	240	0.43	16
RECEPTIONIST AND INFORMATION CLERKS	10	0.02	29
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	110	0.20	24
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	730	1.31	19
PAYROLL AND TIMEKEEPING CLERKS	70	0.13	13
GENERAL OFFICE CLERKS	870	1.56	34
BILLING, POSTING, CALCULATING MACH. OPERATORS	30	0.05	23
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	40	0.07	22
DATA ENTRY KEYERS, EXCEPT COMPOSING	250	0.45	34
ALL OTHER OFFICE MACHINE OPERATORS	120	0.22	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
DEPARTMENT STORES
SIC = 531
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SWITCHBOARD OPERATORS	630	1.13	26
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	10	0.02	23
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	130	0.23	35
MARKING CLERKS	630	1.13	25
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	760	1.36	25
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	1,130	2.03	27
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	410	0.74	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	2,000	3.59	38
SERVICE OCCUPATIONS	2,850	5.12	N/A
DETECTIVES AND INVESTIGATORS, EXCEPT PUBLIC	490	0.88	32
GUARDS AND WATCH GUARDS	540	0.97	24
HOSTS,HOSTESSES-RESTAURANT,LOUNGE,COFFEE SHOP	20	0.04	30
WAITERS AND WAITRESSES	70	0.13	29
COOKS, RESTAURANT	10	0.02	34
COOKS, SPECIALTY FAST FOOD	10	0.02	28
COOKS, SHORT ORDER	20	0.04	30
FOOD PREPARATION WORKERS	30	0.05	31
ALL OTHER FOOD SERVICE WORKERS	250	0.45	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	730	1.31	14
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	60	0.11	N/A
HAIRDRESSERS, HAIRSTYLISTS, & COSMETOLOGISTS	540	0.97	32
ALL OTHER SERVICE WORKERS	90	0.16	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,830	6.87	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	60	0.11	34
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	10	0.02	12
ALL OTHER INSPECTORS,TESTERS & OTHER RELATED	90	0.16	N/A
MACHINERY MAINTENANCE MECHANICS	20	0.04	34
MAINTENANCE REPAIRERS, GENERAL UTILITY	450	0.81	27
AUTOMOTIVE MECHANICS	670	1.20	26
WATCHMAKERS	10	0.02	32
BICYCLE REPAIRERS	40	0.07	4
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	1,020	1.83	N/A
CARPENTERS	20	0.04	8
ELECTRICIANS	20	0.04	N/A
PAINTERS, PAPERHANGERS, CONSTR & MAINTENANCE	20	0.04	N/A
ALL OTHER PRECISION WORKERS	230	0.41	45
ALL OTHER MACHINE OPERATORS AND TENDERS	100	0.18	N/A
ALL OTHER HAND WORKERS	10	0.02	32
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.02	25
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	350	0.63	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
VARIETY STORES
SIC = 533
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	3,310	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	270	8.16	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	240	7.25	13
ALL OTHER MANAGERS AND ADMINISTRATORS	30	0.91	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	40	1.21	N/A
SALES AND RELATED OCCUPATIONS	2,360	71.30	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	150	4.53	26
SALESPERSONS, RETAIL	1,180	35.65	12
STOCK CLERKS, SALES FLOOR	370	11.18	11
CASHIERS	650	19.64	14
ALL OTHER SALES AND RELATED WORKERS	20	0.60	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	290	8.76	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	50	1.51	29
GENERAL OFFICE CLERKS	40	1.21	35
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	70	2.11	21
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	140	4.23	N/A
SERVICE OCCUPATIONS	330	9.97	N/A
GUARDS AND WATCH GUARDS	10	0.30	N/A
ALL OTHER FOOD SERVICE WORKERS	260	7.85	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	60	1.81	33
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	30	0.91	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

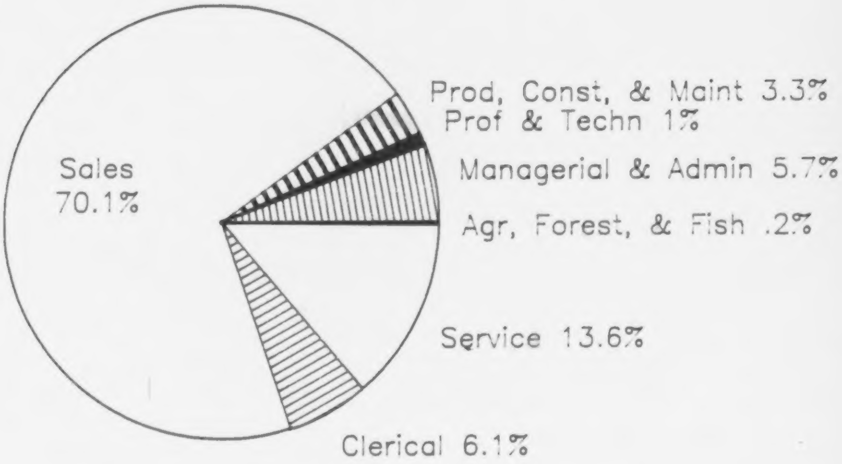
TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS GENERAL MERCHANDISE STORE
SIC = 539
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,440	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	210	8.61	N/A
PURCHASING MANAGERS	50	2.05	35
GENERAL MANAGERS AND TOP EXECUTIVES	160	6.56	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	60	2.46	N/A
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	50	2.05	19
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	10	0.41	N/A
SALES AND RELATED OCCUPATIONS	1,780	72.95	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	80	3.28	19
SALESPERSONS, RETAIL	960	39.34	6
STOCK CLERKS, SALES FLOOR	290	11.89	17
CASHIERS	460	18.85	11
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	290	11.89	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	40	1.64	27
SECRETARIES	20	0.82	26
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	60	2.46	15
GENERAL OFFICE CLERKS	40	1.64	22
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.41	27
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	40	1.64	27
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	80	3.28	N/A
SERVICE OCCUPATIONS	40	1.64	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	60	2.46	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Food Stores (SIC 54)

Distribution of Employment by Major Occupation Category



Ranked Occupational Employment

1.	Cashiers	26870
2.	Stock Clerks, Sales Floor	19680
3.	Salespersons, Retail	10010
4.	All Other Sales and Related Workers	5690
5.	All Other Food Service Workers	4650
6.	General Managers and Top Executives	4420
7.	Butchers an Meat Cutters	2770
8.	Bakers, Bread, and Pastry	2390
9.	First Line Supervisors & Manager/Supvrs - Sales	2390
10.	All Other Material Recording, Scheduling, ETC.	1760

SIC 54

This major group includes retail stores primarily engaged in selling food for home preparation and consumption. Employment in the group increased by 11,210, or 13.8 percent, from its 1982 employment level of 81,250. Grocery stores, SIC 541, represented over 82 percent of employment in the group and accounted for most of the job increase over the 1982 to 1985 period. The number of establishments increased by 227 since 1982, reversing the downward trend that was evident during the 1979 to 1982 period. The average number of employees per establishment remained at 23, indicating super markets have reached their optimum size.

There were 26,870 persons employed as cashiers, the largest occupation in the industry group and 19,680 persons employed as stock clerks, the next largest occupation. Together these two occupations employ over 50 percent of the industry total. Cashier and stock clerk are very significant occupations for the many people who desire part-time work.

TABLE
OCCUPATIONS OF EMPLOYEES
FOOD STORES
SIC = 54
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	92,220	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	5,300	5.75	N/A
PURCHASING MANAGERS	360	0.39	34
GENERAL MANAGERS AND TOP EXECUTIVES	4,420	4.79	10
ALL OTHER MANAGERS AND ADMINISTRATORS	530	0.57	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	950	1.03	N/A
ACCOUNTANTS AND AUDITORS	160	0.17	30
ALL OTHER FINANCIAL SPECIALISTS	20	0.02	N/A
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	320	0.35	33
ALL OTHER MANAGEMENT SUPPORT WORKERS	150	0.16	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	300	0.33	N/A
SALES AND RELATED OCCUPATIONS	64,660	70.11	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	2,390	2.59	19
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	10	0.01	26
SALESPERSONS, RETAIL	10,010	10.85	21
STOCK CLERKS, SALES FLOOR	19,680	21.34	10
CASHIERS	26,870	29.14	9
ALL OTHER SALES AND RELATED WORKERS	5,690	6.17	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	5,580	6.05	N/A
TYPISTS	20	0.02	34
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	1,520	1.65	25
GENERAL OFFICE CLERKS	850	0.92	24
ALL OTHER OFFICE MACHINE OPERATORS	150	0.16	N/A
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	480	0.52	31
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	1,760	1.91	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	800	0.87	68
SERVICE OCCUPATIONS	12,510	13.57	N/A
BAKERS, BREAD AND PASTRY	2,390	2.59	17
BUTCHERS AND MEAT CUTTERS	2,770	3.00	20
COOKS, RESTAURANT	20	0.02	33
COMBINED FOOD PREPARATION & SERVICE WORKERS	1,350	1.46	27
ALL OTHER FOOD SERVICE WORKERS	4,650	5.04	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	1,220	1.32	27
ALL OTHER SERVICE WORKERS	130	0.14	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	140	0.15	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,070	3.33	N/A
ALL OTHER PRECISION WORKERS	230	0.25	52
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	180	0.20	21
ALL OTHER TRANSPORTATION AND RELATED WORKERS	380	0.41	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	380	0.41	18

---

1 - Summed parts may not equal totals because of rounding.
** - Emploument less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
FOOD STORES
SIC = 54
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
HAND PACKERS AND PACKAGERS	1,640	1.78	28
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	270	0.29	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
GROCERY STORES
SIC = 541
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER^1	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	75,690	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	3,770	4.98	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	3,210	4.24	14
ALL OTHER MANAGERS AND ADMINISTRATORS	560	0.74	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	590	0.78	N/A
ALL OTHER FINANCIAL SPECIALISTS	80	0.11	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	280	0.37	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	230	0.30	N/A
SALES AND RELATED OCCUPATIONS	56,850	75.11	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	2,370	3.13	19
STOCK CLERKS, SALES FLOOR	19,010	25.12	10
CASHIERS	25,620	33.85	9
ALL OTHER SALES AND RELATED WORKERS	9,840	13.00	18
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	4,870	6.43	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	1,210	1.60	31
GENERAL OFFICE CLERKS	750	0.99	26
ALL OTHER OFFICE MACHINE OPERATORS	130	0.17	N/A
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	440	0.58	34
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	1,710	2.26	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	630	0.83	N/A
SERVICE OCCUPATIONS	7,390	9.76	N/A
BUTCHERS AND MEAT CUTTERS	2,430	3.21	23
COMBINED FOOD PREPARATION & SERVICE WORKERS	1,180	1.56	31
ALL OTHER FOOD SERVICE WORKERS	2,820	3.73	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	900	1.19	35
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	10	0.01	N/A
ALL OTHER SERVICE WORKERS	50	0.07	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,230	2.95	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	100	0.13	N/A
ALL OTHER TRANSPORTATION AND RELATED WORKERS	290	0.38	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	290	0.38	20
HAND PACKERS AND PACKAGERS	1,320	1.74	34
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	230	0.30	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MEAT MARKETS AND FREEZER PROVISIONERS
SIC = 542
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,290	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	290	12.66	N/A
PURCHASING MANAGERS	50	2.18	29
GENERAL MANAGERS AND TOP EXECUTIVES	230	10.04	10
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.44	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	80	3.49	N/A
ACCOUNTANTS AND AUDITORS	30	1.31	36
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	40	1.75	34
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.44	N/A
SALES AND RELATED OCCUPATIONS	770	33.62	N/A
SALESPERSONS, RETAIL	550	24.02	17
STOCK CLERKS, SALES FLOOR	80	3.49	33
CASHIERS	110	4.80	25
ALL OTHER SALES AND RELATED WORKERS	30	1.31	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	110	4.80	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	40	1.75	32
GENERAL OFFICE CLERKS	30	1.31	40
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	40	1.75	N/A
SERVICE OCCUPATIONS	730	31.88	N/A
WAITERS AND WAITRESSES	120	5.24	43
BUTCHERS AND MEAT CUTTERS	300	13.10	15
FOOD PREPARATION WORKERS	90	3.93	43
ALL OTHER FOOD SERVICE WORKERS	170	7.42	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	30	1.31	69
ALL OTHER SERVICE WORKERS	20	0.87	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	70	3.06	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	250	10.92	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	30	1.31	38
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	90	3.93	43
HAND PACKERS AND PACKAGERS	70	3.06	37
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	70	3.06	N/A

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
FRUIT STORES AND VEGETABLE MARKETS
SIC = 543
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,940	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	210	10.82	N/A
PURCHASING MANAGERS	80	4.12	47
GENERAL MANAGERS AND TOP EXECUTIVES	120	6.19	15
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.52	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	60	3.09	N/A
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	20	1.03	41
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	40	2.06	N/A
SALES AND RELATED OCCUPATIONS	1,140	58.76	N/A
SALESPERSONS, RETAIL	300	15.46	29
COUNTER AND RENTAL CLERKS	40	2.06	N/A
STOCK CLERKS, SALES FLOOR	360	18.56	14
CASHIERS	430	22.16	15
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	120	6.19	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	40	2.06	27
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	10	0.52	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	70	3.61	N/A
SERVICE OCCUPATIONS	250	12.89	N/A
BAKERS, BREAD AND PASTRY	50	2.58	33
BUTCHERS AND MEAT CUTTERS	40	2.06	35
FOOD PREPARATION WORKERS	80	4.12	15
ALL OTHER FOOD SERVICE WORKERS	50	2.58	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	20	1.03	N/A
ALL OTHER SERVICE WORKERS	20	1.03	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	70	3.61	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	90	4.64	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	20	1.03	46
ALL OTHER MOTOR VEHICLE OPERATORS	20	1.03	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	50	2.58	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
CANDY, NUT AND CONFECTIONERY STORES
SIC = 544
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,350	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	160	11.85	N/A
PURCHASING MANAGERS	10	0.74	14
GENERAL MANAGERS AND TOP EXECUTIVES	140	10.37	4
ALL OTHER MANAGERS AND ADMINISTRATORS	100	7.41	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	40	2.96	N/A
ACCOUNTANTS AND AUDITORS	10	0.74	44
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	1.48	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	20	1.48	N/A
SALES AND RELATED OCCUPATIONS	930	68.89	N/A
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	10	0.74	28
SALESPERSONS, RETAIL	870	64.44	5
STOCK CLERKS, SALES FLOOR	10	0.74	28
CASHIERS	50	3.70	16
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	70	5.19	N/A
SECRETARIES	10	0.74	44
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	20	1.48	16
GENERAL OFFICE CLERKS	10	0.74	42
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	1.48	N/A
SERVICE OCCUPATIONS	90	6.67	N/A
BAKERS, BREAD AND PASTRY	10	0.74	35
FOOD PREPARATION WORKERS	20	1.48	27
COMBINED FOOD PREPARATION & SERVICE WORKERS	10	0.74	25
ALL OTHER FOOD SERVICE WORKERS	10	0.74	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	40	2.96	9
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	60	4.44	N/A
ALL OTHER PRECISION WORKERS	10	0.74	22
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.74	N/A
HAND PACKERS AND PACKAGERS	40	2.96	32

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
RETAIL BAKERIES
SIC = 546
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	8,040	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	520	6.47	N/A
PURCHASING MANAGERS	30	0.37	43
GENERAL MANAGERS AND TOP EXECUTIVES	460	5.72	11
ALL OTHER MANAGERS AND ADMINISTRATORS	30	0.37	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	90	1.12	N/A
ACCOUNTANTS AND AUDITORS	40	0.50	39
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	50	0.62	N/A
SALES AND RELATED OCCUPATIONS	3,150	39.18	N/A
SALESPERSONS, RETAIL	2,870	35.70	11
CASHIERS	250	3.11	40
ALL OTHER SALES AND RELATED WORKERS	30	0.37	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	200	2.49	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	160	1.99	28
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	50	0.62	N/A
SERVICE OCCUPATIONS	3,740	46.52	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	20	0.25	42
COUNTER ATTENDANTS-LUNCHROOM,COFFEE SHOP, ETC	1,000	12.44	29
BAKERS, BREAD AND PASTRY	1,840	22.89	13
COOKS, RESTAURANT	10	0.12	45
COOKS, INSTITUTION OR CAFETERIA	10	0.12	40
FOOD PREPARATION WORKERS	190	2.36	38
ALL OTHER FOOD SERVICE WORKERS	440	5.47	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	230	2.86	19
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	330	4.10	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	0.37	44
ALL OTHER PRECISION WORKERS	20	0.25	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	60	0.75	43
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	70	0.87	29
ALL OTHER FREIGHT,STOCK,MATERIAL MOVERS,HAND	20	0.25	N/A
HAND PACKERS AND PACKAGERS	140	1.74	46

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS FOOD STORES
SIC = 549
REFERENCE DATE JUNE, 1985

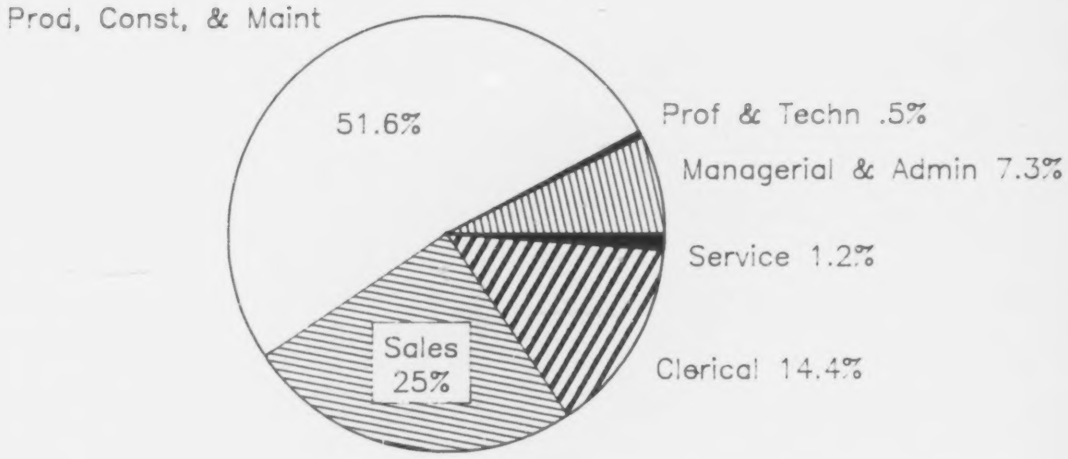
OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,690	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	200	11.83	N/A
PURCHASING MANAGERS	20	1.18	21
GENERAL MANAGERS AND TOP EXECUTIVES	140	8.28	9
ALL OTHER MANAGERS AND ADMINISTRATORS	30	1.78	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	50	2.96	N/A
ACCOUNTANTS AND AUDITORS	10	0.59	33
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	40	2.37	N/A
SALES AND RELATED OCCUPATIONS	1,000	59.17	N/A
SALESPERSONS, RETAIL	710	42.01	8
STOCK CLERKS, SALES FLOOR	70	4.14	19
CASHIERS	200	11.83	27
ALL OTHER SALES AND RELATED WORKERS	20	1.18	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	200	11.83	N/A
SECRETARIES	10	0.59	30
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	40	2.37	20
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	20	1.18	16
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	130	7.69	N/A
SERVICE OCCUPATIONS	170	10.06	N/A
ALL OTHER FOOD SERVICE WORKERS	160	9.47	N/A
ALL OTHER SERVICE WORKERS	20	1.18	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	80	4.73	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.59	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	70	4.14	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Automotive Dealers & Service Stations (SIC 55)

Distribution of Employment by Major Occupation Category



Ranked Occupational Employment

1.	Automotive Mechanics	7990
2.	Service Station Attendants	6360
3.	Salespersons, Retail	5730
4.	Cashiers	2650
5.	Salespersons, Parts	2550
6.	General Managers and Top Executives	2450
7.	Supervisors - Mechanics, Installers, & Repairers	2170
8.	Automotive Body and Related Repairers	1750
9.	Bookkeeping, Accounting, & Auditing Clerks	1740
10.	General Office Clerks	1620

SIC 55

This major group includes retail dealers selling new and used automobiles, boats, recreational and utility trailers and motorcycles; those selling new automotive parts and accessories; and gasoline service stations.

New and used car dealers, SIC 551, is the largest industry in the major group with employment of 22,460, followed by gasoline service stations, SIC 554, with employment of 14,620. These two industries provide over 80 percent of employment. Both are affected by oil prices and as the price of oil has been quite stable over the past three years, both have benefited. The nearly 30 percent employment increase in new and used car dealers came during the same period that the number of dealers remained about the same, resulting in an average employment per dealership of 31 in 1985 compared to only 23 at the time of the last survey in 1982. In terms of occupations, the two most dominant ones, automotive mechanics and retail salespersons, each represents about 20 percent of industry employment. Managerial occupations have declined by 7 percent since the last survey and the sales and related jobs have increased about the same amount.

Service station employment increased only slightly from its 1982 level. During this period the number of service stations declined by 378 or 14 percent. The changes in specific occupational employment is dramatically shown as the change to self service stations continued. Cashiers, with less than 4 percent of the industry total in 1982, jumped to 16 percent in 1985. Workers classified as service station or fuel pump attendants made up 59 percent of the employment in 1982, while the number declined to 43 percent in 1985. Automotive mechanics declined only 1 percent, indicating that the full-service stations are remaining in operation.

TABLE
OCCUPATIONS OF EMPLOYEES
AUTOMOTIVE DEALERS & SERVICE STATIONS
SIC = 55
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	46,090	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	3,380	7.33	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	810	1.76	16
GENERAL MANAGERS AND TOP EXECUTIVES	2,450	5.32	6
ALL OTHER MANAGERS AND ADMINISTRATORS	130	0.28	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	240	0.52	N/A
ACCOUNTANTS AND AUDITORS	180	0.39	24
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	60	0.13	N/A
SALES AND RELATED OCCUPATIONS	11,520	24.99	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	470	1.02	33
SALESPERSONS, RETAIL	5,730	12.43	7
SALESPERSONS, PARTS	2,550	5.53	13
CASHIERS	2,650	5.75	20
DEMONSTRATORS, PROMOTERS, AND MODELS	10	0.02	49
ALL OTHER SALES AND RELATED WORKERS	110	0.24	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	6,640	14.41	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	1,040	2.26	17
SECRETARIES	400	0.87	21
RECEPTIONIST AND INFORMATION CLERKS	200	0.43	47
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	1,740	3.78	10
BILLING, COST AND RATE CLERKS	620	1.35	14
GENERAL OFFICE CLERKS	1,620	3.51	13
DATA ENTRY KEYERS, EXCEPT COMPOSING	40	0.09	45
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	670	1.45	17
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	320	0.69	N/A
SERVICE OCCUPATIONS	530	1.15	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	23,780	51.59	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	2,170	4.71	8
AUTOMOTIVE MECHANICS	7,990	17.34	6
AUTOMOTIVE BODY AND RELATED REPAIRERS	1,750	3.80	16
MOTORCYCLE REPAIRERS	140	0.30	44
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	270	0.59	35
SMALL ENGINE SPECIALISTS	190	0.41	14
INSTALLERS & REPAIRERS-MFG BLDG,HOME,TRAILERS	80	0.17	45
TIRE REPAIRERS CHANGERS	880	1.91	19
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	340	0.74	N/A
ALL OTHER PRECISION WORKERS	70	0.15	N/A
ALL OTHER HAND WORKERS	20	0.04	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	170	0.37	32
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	750	1.63	15

---

[1] - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
AUTOMOTIVE DEALERS & SERVICE STATIONS
SIC = 55
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SERVICE STATION ATTENDANTS	6,360	13.80	7
ALL OTHER TRANSPORTATION AND RELATED WORKERS	430	0.93	N/A
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	20	0.04	N/A
MECHANIC AND REPAIRER HELPERS	880	1.91	19
VEHICLE WASHERS AND EQUIPMENT CLEANERS	950	2.06	16
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	320	0.69	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
NEW AND USED CAR DEALERS
SIC = 551
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	22,460	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,700	7.57	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	640	2.85	19
GENERAL MANAGERS AND TOP EXECUTIVES	1,000	4.45	11
ALL OTHER MANAGERS AND ADMINISTRATORS	70	0.31	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	90	0.40	N/A
ACCOUNTANTS AND AUDITORS	90	0.40	37
SALES AND RELATED OCCUPATIONS	6,310	28.09	N/A
SALESPERSONS, RETAIL	4,550	20.26	6
SALESPERSONS, PARTS	1,290	5.74	21
CASHIERS	210	0.93	22
ALL OTHER SALES AND RELATED WORKERS	270	1.20	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	4,170	18.57	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	710	3.16	24
SECRETARIES	210	0.93	36
RECEPTIONIST AND INFORMATION CLERKS	200	0.89	48
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	780	3.47	19
BILLING, COST AND RATE CLERKS	540	2.40	16
GENERAL OFFICE CLERKS	1,120	4.99	17
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	370	1.65	25
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	250	1.11	N/A
SERVICE OCCUPATIONS	260	1.16	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	260	1.16	35
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	9,910	44.12	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	1,430	6.37	9
AUTOMOTIVE MECHANICS	4,650	20.70	10
AUTOMOTIVE BODY AND RELATED REPAIRERS	1,510	6.72	19
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	320	1.42	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	150	0.67	35
ALL OTHER TRANSPORTATION AND RELATED WORKERS	350	1.56	N/A
MECHANIC AND REPAIRER HELPERS	450	2.00	26
VEHICLE WASHERS AND EQUIPMENT CLEANERS	820	3.65	18
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	250	1.11	N/A

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
USED CAR DEALERS
SIC = 552
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,390	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	150	10.79	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	40	2.88	22
GENERAL MANAGERS AND TOP EXECUTIVES	110	7.91	12
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	10	0.72	N/A
ACCOUNTANTS AND AUDITORS	10	0.72	41
SALES AND RELATED OCCUPATIONS	310	22.30	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	20	1.44	32
SALESPERSONS, RETAIL	240	17.27	10
SALESPERSONS, PARTS	50	3.60	16
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	200	14.39	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	30	2.16	20
SECRETARIES	30	2.16	20
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	60	4.32	14
GENERAL OFFICE CLERKS	50	3.60	21
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	10	0.72	27
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.72	N/A
SERVICE OCCUPATIONS	10	0.72	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	730	52.52	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	50	3.60	21
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.72	22
AUTOMOTIVE MECHANICS	320	23.02	9
AUTOMOTIVE BODY AND RELATED REPAIRERS	130	9.35	16
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	20	1.44	44
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	20	1.44	31
MECHANIC AND REPAIRER HELPERS	40	2.88	26
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	20	1.44	37
VEHICLE WASHERS AND EQUIPMENT CLEANERS	40	2.88	21
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	70	5.04	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
AUTO AND HOME SUPPLY STORES
SIC = 553
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	5,400	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	680	12.59	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	80	1.48	34
GENERAL MANAGERS AND TOP EXECUTIVES	580	10.74	10
ALL OTHER MANAGERS AND ADMINISTRATORS	20	0.37	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	60	1.11	N/A
SALES AND RELATED OCCUPATIONS	1,350	25.00	N/A
SALESPERSONS, RETAIL	250	4.63	27
SALESPERSONS, PARTS	980	18.15	18
ALL OTHER SALES AND RELATED WORKERS	130	2.41	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	770	14.26	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	70	1.30	30
SECRETARIES	30	0.56	44
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	270	5.00	16
BILLING, COST AND RATE CLERKS	50	0.93	35
GENERAL OFFICE CLERKS	140	2.59	30
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	150	2.78	34
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	60	1.11	60
SERVICE OCCUPATIONS	20	0.37	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,530	46.85	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	200	3.70	26
MAINTENANCE REPAIRERS, GENERAL UTILITY	20	0.37	42
AUTOMOTIVE MECHANICS	920	17.04	16
TIRE REPAIRERS CHANGERS	740	13.70	21
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	30	0.56	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	30	0.56	42
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	440	8.15	20
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	150	2.78	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
GASOLINE SERVICE STATIONS
SIC = 554
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	14,620	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	650	4.45	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	610	4.17	13
ALL OTHER MANAGERS AND ADMINISTRATORS	50	0.34	84
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	40	0.27	N/A
SALES AND RELATED OCCUPATIONS	3,010	20.59	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	190	1.30	45
CASHIERS	2,340	16.01	22
ALL OTHER SALES AND RELATED WORKERS	480	3.28	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,070	7.32	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	160	1.09	31
SECRETARIES	80	0.55	37
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	530	3.63	14
GENERAL OFFICE CLERKS	250	1.71	25
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	50	0.34	N/A
SERVICE OCCUPATIONS	180	1.23	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	50	0.34	45
ALL OTHER SERVICE WORKERS	120	0.82	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	9,670	66.14	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	390	2.67	18
AUTOMOTIVE MECHANICS	2,050	14.02	10
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	120	0.82	46
TIRE REPAIRERS CHANGERS	120	0.82	50
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	110	0.75	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	100	0.68	50
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	100	0.68	47
SERVICE STATION ATTENDANTS	6,290	43.02	7
ALL OTHER TRANSPORTATION AND RELATED WORKERS	90	0.62	N/A
MECHANIC AND REPAIRER HELPERS	260	1.78	39
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	40	0.27	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
BOAT DEALERS
SIC = 555
REFERENCE DATE JUNE, 1985

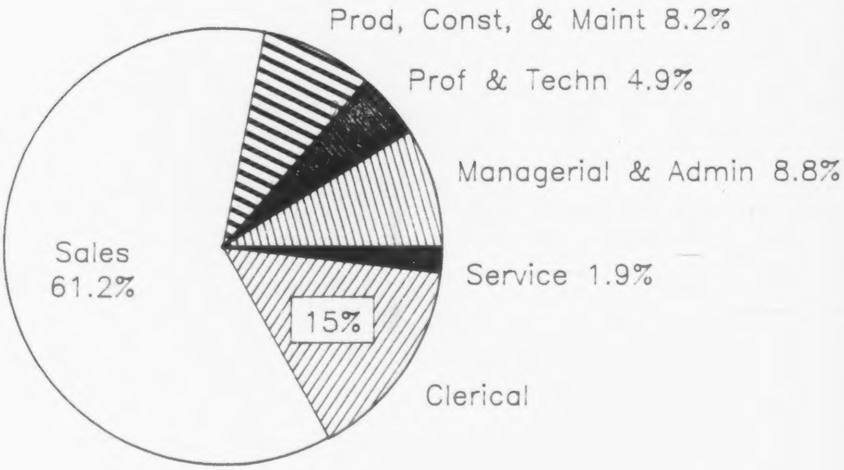
OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,140	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	80	7.02	N/A
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.88	24
GENERAL MANAGERS AND TOP EXECUTIVES	70	6.14	8
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	20	1.75	N/A
ACCOUNTANTS AND AUDITORS	10	0.88	22
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	10	0.88	N/A
SALES AND RELATED OCCUPATIONS	280	24.56	N/A
SALESPERSONS, RETAIL	140	12.28	11
SALESPERSONS, PARTS	100	8.77	16
CASHIERS	30	2.63	34
ALL OTHER SALES AND RELATED WORKERS	10	0.88	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	250	21.93	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	40	3.51	14
SECRETARIES	20	1.75	14
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	60	5.26	10
BILLING, COST AND RATE CLERKS	10	0.88	25
GENERAL OFFICE CLERKS	40	3.51	16
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	80	7.02	25
SERVICE OCCUPATIONS	50	4.39	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	20	1.75	43
ALL OTHER SERVICE WORKERS	30	2.63	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	460	40.35	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	50	4.39	11
MAINTENANCE REPAIRERS, GENERAL UTILITY	40	3.51	25
AUTOMOTIVE MECHANICS	20	1.75	37
SMALL ENGINE SPECIALISTS	170	14.91	11
ALL OTHER PRECISION WORKERS	20	1.75	N/A
ALL OTHER HAND WORKERS	20	1.75	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	10	0.88	22
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	20	1.75	26
SERVICE STATION ATTENDANTS	20	1.75	31
ALL OTHER MATERIAL MOVING EQUIPMENT OPERATORS	10	0.88	N/A
MECHANIC AND REPAIRER HELPERS	10	0.88	30
VEHICLE WASHERS AND EQUIPMENT CLEANERS	30	2.63	32
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	30	2.63	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Apparel and Accessory Stores (SIC 56)

Distribution of Employment by Major Occupation Category



Ranked Occupational Employment

1.	Salespersons, Retail	19120
2.	General Managers and Top Executives	2790
3.	Stock Clerks, Sales Floor	2190
4.	Cashiers	2120
5.	First Line Supervisors & Manager/Supervisors - Sales	1790
6.	All Other Material Recording, Scheduling, ETC.	1070
7.	Hand Packers and Packagers	1030
8.	Custom Tailors and Sewers	870
9.	Bookkeeping, Accounting, and & Auditing Clerks	830
10.	All Other Helpers, Laborers, & Material Movers Hand	800

SIC 56

This major group includes retail stores primarily engaged in selling new clothing, shoes, hats, underwear, and related articles for personal wear. The group had an increase in employment of 6080, or 17.2 percent, from its 1982 level of 35,420. The largest increase was in women's ready-to-wear stores, SIC 562. The 1985 survey showed sales and related occupations made up 64 percent of jobs in the women's ready-to-wear stores, an increase of 7 percent since 1982. During the same period, managerial jobs declined by 5 percent. The industry is projected to grow 18 percent by 1995 with family clothing stores providing the bulk of the jobs. Many of these jobs in this industry are part-time in nature.

TABLE
OCCUPATIONS OF EMPLOYEES
APPAREL AND ACCESSORY STORES
SIC = 56
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	41,760	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	3,700	8.86	N/A
FINANCIAL MANAGERS	90	0.22	14
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	90	0.22	13
PURCHASING MANAGERS	230	0.55	21
ADMINISTRATIVE SERVICES MANAGERS	60	0.14	22
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	90	0.22	19
GENERAL MANAGERS AND TOP EXECUTIVES	2,790	6.68	7
ALL OTHER MANAGERS AND ADMINISTRATORS	360	0.86	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	2,030	4.86	N/A
ACCOUNTANTS AND AUDITORS	390	0.93	13
BUDGET ANALYSTS	20	0.05	25
ALL OTHER FINANCIAL SPECIALISTS	10	0.02	19
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	610	1.46	15
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	30	0.07	N/A
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	70	0.17	21
ALL OTHER MANAGEMENT SUPPORT WORKERS	190	0.45	27
ELECTRICAL AND ELECTRONIC ENGINEERS	20	0.05	N/A
MECHANICAL ENGINEERS	30	0.07	17
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	10	0.02	N/A
DRAFTERS	20	0.05	32
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	110	0.26	9
COMPUTER PROGRAMMERS	150	0.36	15
COMPUTER PROGRAMMER AIDES	20	0.05	35
REGISTERED NURSES	10	0.02	31
WRITERS AND EDITORS	10	0.02	N/A
ARTISTS AND RELATED WORKERS	40	0.10	16
DESIGNERS, EXCEPT INTERIOR DESIGNERS	40	0.10	31
MERCHANDISE DISPLAYERS & WINDOW TRIMMERS	150	0.36	32
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	110	0.26	N/A
SALES AND RELATED OCCUPATIONS	25,580	61.25	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	1,790	4.29	13
SALESPERSONS, RETAIL	19,120	45.79	5
STOCK CLERKS, SALES FLOOR	2,190	5.24	28
CASHIERS	2,120	5.08	24
NEWS-STREET VENDOR,PHONE SOLICIT,DOOR TO DOOR	40	0.10	N/A
ALL OTHER SALES AND RELATED WORKERS	340	0.81	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	6,250	14.97	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	630	1.51	20
SECRETARIES	310	0.74	10

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
APPAREL AND ACCESSORY STORES
SIC = 56
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
RECEPTIONIST AND INFORMATION CLERKS	30	0.07	21
TYPISTS	30	0.07	26
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	60	0.14	17
FILE CLERKS	20	0.05	34
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	410	0.98	23
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	830	1.99	12
PAYROLL AND TIMEKEEPING CLERKS	90	0.22	19
GENERAL OFFICE CLERKS	550	1.32	17
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	120	0.29	8
PERIPHERAL EDP EQUIPMENT OPERATORS	40	0.10	22
DATA ENTRY KEYERS, EXCEPT COMPOSING	240	0.57	25
ALL OTHER OFFICE MACHINE OPERATORS	10	0.02	27
SWITCHBOARD OPERATORS	40	0.10	22
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	70	0.17	22
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	550	1.32	25
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	510	1.22	30
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	1,070	2.56	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	650	1.56	24
SERVICE OCCUPATIONS	780	1.87	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	110	0.26	2
DETECTIVES AND INVESTIGATORS, EXCEPT PUBLIC	150	0.36	11
GUARDS AND WATCH GUARDS	220	0.53	9
ALL OTHER FOOD SERVICE WORKERS	50	0.12	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	50	0.12	N/A
ALL OTHER SERVICE WORKERS	200	0.48	22
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,420	8.19	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	70	0.17	16
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	0.07	26
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	60	0.14	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	20	0.05	N/A
CUSTOM TAILORS AND SEWERS	870	2.08	23
ALL OTHER PRECISION WORKERS	70	0.17	21
ALL OTHER HAND WORKERS	320	0.77	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	110	0.26	21
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	20	0.05	35
CONVEYOR OPERATORS AND TENDERS	10	0.02	N/A
HAND PACKERS AND PACKAGERS	1,030	2.47	1
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	800	1.92	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Emploument less than 10
N/A - Relative Error Not Available

# TABLE
# OCCUPATIONS OF EMPLOYEES
# MENS & BOYS CLOTHING AND FURNISHINGS
SIC = 561

REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	3,700	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	380	10.27	N/A
PURCHASING MANAGERS	30	0.81	32
GENERAL MANAGERS AND TOP EXECUTIVES	340	9.19	9
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.27	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	100	2.70	N/A
ACCOUNTANTS AND AUDITORS	10	0.27	37
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	70	1.89	36
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	20	0.54	N/A
SALES AND RELATED OCCUPATIONS	2,380	64.32	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	150	4.05	17
SALESPERSONS, RETAIL	1,990	53.78	5
STOCK CLERKS, SALES FLOOR	80	2.16	47
CASHIERS	150	4.05	23
ALL OTHER SALES AND RELATED WORKERS	20	0.54	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	530	14.32	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	100	2.70	17
ADJUSTMENT CLERKS	10	0.27	33
SECRETARIES	10	0.27	26
TYPISTS	10	0.27	35
CORRESPONDENCE CLERKS	10	0.27	32
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	20	0.54	27
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	120	3.24	15
BILLING, COST AND RATE CLERKS	10	0.27	28
GENERAL OFFICE CLERKS	90	2.43	26
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.27	28
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.54	37
MARKING CLERKS	10	0.27	30
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	50	1.35	16
ORDER FILLERS, WHOLESALE AND RETAIL SALES	10	0.27	35
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	40	1.08	20
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	30	0.81	N/A
SERVICE OCCUPATIONS	40	1.08	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	40	1.08	25
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	280	7.57	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.27	N/A
CUSTOM TAILORS AND SEWERS	240	6.49	15
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.27	38
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	10	0.27	35
HAND PACKERS AND PACKAGERS	10	0.27	38

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MENS & BOYS CLOTHING AND FURNISHINGS
SIC = 561
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	10	0.27	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
WOMENS READY TO WEAR STORES
SIC = 562
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	14,400	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,040	7.22	N/A
FINANCIAL MANAGERS	30	0.21	25
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	30	0.21	29
GENERAL MANAGERS AND TOP EXECUTIVES	790	5.49	16
ALL OTHER MANAGERS AND ADMINISTRATORS	200	1.39	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	520	3.61	N/A
ALL OTHER FINANCIAL SPECIALISTS	90	0.63	N/A
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	210	1.46	28
ALL OTHER MANAGEMENT SUPPORT WORKERS	60	0.42	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	170	1.18	N/A
SALES AND RELATED OCCUPATIONS	9,090	63.13	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	840	5.83	21
SALESPERSONS, RETAIL	7,410	51.46	9
ALL OTHER SALES AND RELATED WORKERS	850	5.90	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	2,450	17.01	N/A
RECEPTIONIST AND INFORMATION CLERKS	10	0.07	33
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	30	0.21	34
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	270	1.88	24
PAYROLL AND TIMEKEEPING CLERKS	50	0.35	35
ALL OTHER OFFICE MACHINE OPERATORS	140	0.97	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	240	1.67	34
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	840	5.83	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	880	6.11	N/A
SERVICE OCCUPATIONS	250	1.74	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	130	0.90	33
ALL OTHER SERVICE WORKERS	130	0.90	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,040	7.22	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	20	0.14	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	50	0.35	N/A
ALL OTHER PRECISION WORKERS	250	1.74	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	40	0.28	34
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	690	4.79	108

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
WOMENS ACCESSORY AND SPECIALITY STORES
SIC = 563
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,560	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	160	10.26	N/A
PURCHASING MANAGERS	20	1.28	18
GENERAL MANAGERS AND TOP EXECUTIVES	130	8.33	7
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.64	N/A
PROFESSIONAL, PARAPROFESSIONAL, TECH OCCUPATION	60	3.85	N/A
ACCOUNTANTS AND AUDITORS	10	0.64	16
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	40	2.56	18
ALL OTHER PROFESSIONAL, PARAPROF., &TECHNICAL	10	0.64	N/A
SALES AND RELATED OCCUPATIONS	1,090	69.87	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	70	4.49	11
SALESPERSONS, RETAIL	910	58.33	3
STOCK CLERKS, SALES FLOOR	30	1.92	35
CASHIERS	80	5.13	14
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	150	9.62	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	30	1.92	11
SECRETARIES	10	0.64	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	40	2.56	13
GENERAL OFFICE CLERKS	20	1.28	18
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.64	N/A
MARKING CLERKS	10	0.64	20
STOCK CLERKS-STOCKROOM, WAREHOUSE STORAGE YARD	20	1.28	32
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	20	1.28	N/A
SERVICE OCCUPATIONS	20	1.28	N/A
JANITORS, CLEANERS, EXCEPT MAIDS, HOUSE CLEANERS	10	0.64	28
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	80	5.13	N/A
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS	10	0.64	N/A
CUSTOM TAILORS AND SEWERS	10	0.64	30
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	10	0.64	14
HAND PACKERS AND PACKAGERS	50	3.21	N/A
ALL OTHER HELPERS, LABORERS, MAT'L MOVERS HAND	10	0.64	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
FAMILY CLOTHING STORES
SIC = 565
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	11,380	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	760	6.68	N/A
FINANCIAL MANAGERS	30	0.26	28
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	30	0.26	20
ADMINISTRATIVE SERVICES MANAGERS	30	0.26	N/A
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	30	0.26	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	470	4.13	14
ALL OTHER MANAGERS AND ADMINISTRATORS	170	1.49	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	710	6.24	N/A
ACCOUNTANTS AND AUDITORS	210	1.85	3
BUDGET ANALYSTS	10	0.09	N/A
PURCH AGENTS EXCEPT WHOLESALE,RETAIL & FARM	20	0.18	N/A
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	30	0.26	16
ALL OTHER MANAGEMENT SUPPORT WORKERS	140	1.23	N/A
ELECTRICAL AND ELECTRONIC ENGINEERS	20	0.18	N/A
MECHANICAL ENGINEERS	30	0.26	N/A
DRAFTERS	10	0.09	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	80	0.70	N/A
COMPUTER PROGRAMMERS	100	0.88	N/A
WRITERS AND EDITORS	10	0.09	N/A
ARTISTS AND RELATED WORKERS	10	0.09	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	60	0.53	N/A
SALES AND RELATED OCCUPATIONS	6,750	59.31	N/A
SALESPERSONS, RETAIL	3,750	32.95	19
CASHIERS	1,240	10.90	35
ALL OTHER SALES AND RELATED WORKERS	1,760	15.47	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,350	11.86	N/A
SECRETARIES	90	0.79	7
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	10	0.09	32
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	210	1.85	19
BILLING, COST AND RATE CLERKS	10	0.09	N/A
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	90	0.79	5
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	10	0.09	N/A
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	460	4.04	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	470	4.13	N/A
SERVICE OCCUPATIONS	450	3.95	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	100	0.88	N/A
DETECTIVES AND INVESTIGATORS, EXCEPT PUBLIC	140	1.23	9
GUARDS AND WATCH GUARDS	180	1.58	6
ALL OTHER SERVICE WORKERS	20	0.18	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
FAMILY CLOTHING STORES
SIC = 565
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,370	12.04	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.09	N/A
HAND PACKERS AND PACKAGERS	970	8.52	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	390	3.43	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
SHOE STORES
SIC = 566
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	7,910	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,000	12.64	N/A
FINANCIAL MANAGERS	20	0.25	24
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	20	0.25	23
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	20	0.25	21
GENERAL MANAGERS AND TOP EXECUTIVES	740	9.36	15
ALL OTHER MANAGERS AND ADMINISTRATORS	190	2.40	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	510	6.45	N/A
ACCOUNTANTS AND AUDITORS	70	0.88	30
ALL OTHER FINANCIAL SPECIALISTS	10	0.13	10
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	170	2.15	17
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	20	0.25	25
ALL OTHER MANAGEMENT SUPPORT WORKERS	110	1.39	N/A
DRAFTERS	10	0.13	24
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.13	19
COMPUTER PROGRAMMERS	10	0.13	25
ARTISTS AND RELATED WORKERS	10	0.13	29
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	100	1.26	N/A
SALES AND RELATED OCCUPATIONS	4,720	59.67	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	450	5.69	21
SALESPERSONS, RETAIL	3,850	48.67	5
CASHIERS	60	0.76	44
ALL OTHER SALES AND RELATED WORKERS	370	4.68	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,380	17.45	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	180	2.28	32
SECRETARIES	120	1.52	15
TYPISTS	10	0.13	27
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.13	29
PERSONNEL CLERKS, EXCEPT PAYROLL, TIMEKEEPING	20	0.25	18
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	270	3.41	21
PAYROLL AND TIMEKEEPING CLERKS	20	0.25	11
GENERAL OFFICE CLERKS	100	1.26	31
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.13	25
PERIPHERAL EDP EQUIPMENT OPERATORS	30	0.38	26
DATA ENTRY KEYERS, EXCEPT COMPOSING	60	0.76	39
ALL OTHER OFFICE MACHINE OPERATORS	10	0.13	N/A
SWITCHBOARD OPERATORS	10	0.13	N/A
MAIL CLERK, EXC MAIL MACH OP & POSTAL SERVICE	10	0.13	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	20	0.25	45
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	120	1.52	32

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
SHOE STORES
SIC = 566
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	220	2.78	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	160	2.02	N/A
SERVICE OCCUPATIONS	10	0.13	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	290	3.67	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	30	0.38	29
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	10	0.13	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	10	0.13	N/A
ALL OTHER HAND WORKERS	30	0.38	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	30	0.38	33
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	20	0.25	28
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	160	2.02	23
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	10	0.13	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS APPAREL AND ACCESSORIES
SIC = 569
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,710	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	250	14.62	N/A
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.58	41
PURCHASING MANAGERS	20	1.17	19
GENERAL MANAGERS AND TOP EXECUTIVES	210	12.28	7
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.58	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	100	5.85	N/A
ACCOUNTANTS AND AUDITORS	10	0.58	41
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	20	1.17	19
ELECTRICAL,ELECTRONIC ENGINEERING TECH & TECH	10	0.58	N/A
ARTISTS AND RELATED WORKERS	10	0.58	48
MERCHANDISE DISPLAYERS & WINDOW TRIMMERS	10	0.58	33
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	50	2.92	N/A
SALES AND RELATED OCCUPATIONS	810	47.37	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	90	5.26	8
SALESPERSONS, RETAIL	560	32.75	6
STOCK CLERKS, SALES FLOOR	40	2.34	29
CASHIERS	30	1.75	39
NEWS-STREET VENDOR,PHONE SOLICIT,DOOR TO DOOR	40	2.34	N/A
ALL OTHER SALES AND RELATED WORKERS	50	2.92	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	280	16.37	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	40	2.34	13
ADJUSTMENT CLERKS	30	1.75	17
BILL AND ACCOUNT COLLECTORS	10	0.58	20
SECRETARIES	10	0.58	38
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	20	1.17	32
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	40	2.34	12
GENERAL OFFICE CLERKS	20	1.17	24
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	10	0.58	20
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.58	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	20	1.17	16
ORDER FILLERS, WHOLESALE AND RETAIL SALES	20	1.17	N/A
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	20	1.17	12
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	40	2.34	N/A
SERVICE OCCUPATIONS	30	1.75	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	250	14.62	N/A
ALL OTHER SUPERVISORS-PROD, CONST, MAINT. ETC	30	1.75	N/A
CUSTOM TAILORS AND SEWERS	70	4.09	38
ALL OTHER PRECISION WORKERS	30	1.75	49
SEWING MACHINE OPERATORS, GARMENT	70	4.09	11

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

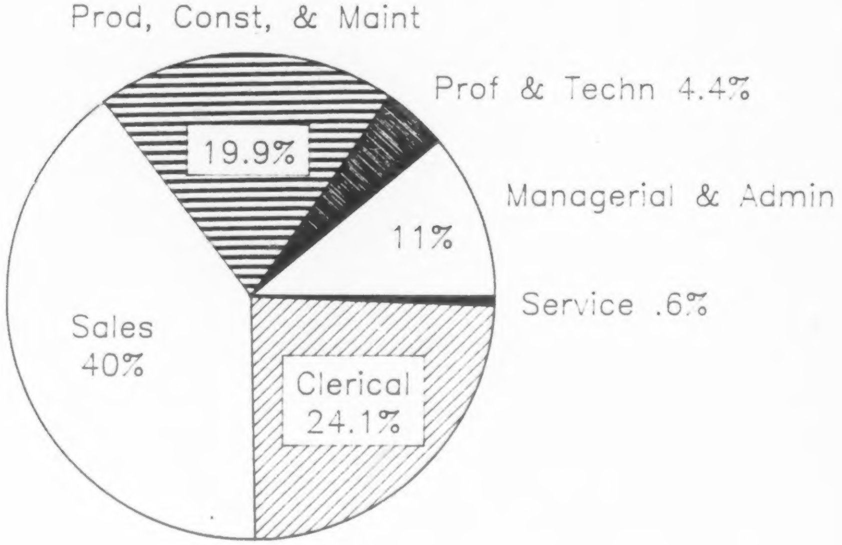
TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS APPAREL AND ACCESSORIES
SIC = 569
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
CONVEYOR OPERATORS AND TENDERS	10	0.58	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	50	2.92	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Furniture and Home Furnishing Stores (SIC 57)

Distribution of Employment by Major Occupation Category



Ranked Occupational Employment

1.	Salespersons, Retail	5310
2.	General Managers and Top Executives	1770
3.	Stock Clerks, Sales Floor	910
4.	General Office Clerks	880
5.	Truck Drivers, Light - Inc Delivery and Route Workers	770
6.	Bookkeeping, Accounting, & Auditing Clerks	750
7.	Supervisor and Mgr/Supvrs - Clerical/Admin. Support	720
8.	Electric Home Appl. & Power Tool Repairers	600
9.	Cashiers	540
10.	Stock Clerks - Stockroom, Warehouse, & Storage Yard	510

SIC 57

This major group includes retail stores selling goods used for furnishing the home such as furniture, floor coverings, draperies, glass and chinaware, domestic stoves, refrigerators and other household electrical and gas appliances. The group is largely dependent on the construction of residential units and the formation of new families. High levels of inflation, interest rates and unemployment contributed to declining employment during the three-year period 1979 to 1982. Since 1982, economic factors have been favorable and residential construction has been on the upswing, resulting in a 20.2 percent increase in employment over the 1982 level of 15,470.

Furniture, home furnishing and equipment stores except appliances, SIC 571, with employment of 9,190, makes up 59 percent of total industry employment. A volatile componet of the group is radio, television and music stores, SIC 573, which is primarily engaged in the retail sale of radios, television sets, high fidelity, and sound reproducing equipment, records, tapes and video equipment. This industry had a growth rate well above the industry average. The increasing sales potential for video components should keep this segment as the strongest performer in the major industry group.

TABLE
OCCUPATIONS OF EMPLOYEES
FURNITURE AND HOME FURNISHING STORES
SIC = 57
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	18,430	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	2,020	10.96	N/A
FINANCIAL MANAGERS	20	0.11	16
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.05	29
PURCHASING MANAGERS	150	0.81	24
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	30	0.16	31
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	10	0.05	28
GENERAL MANAGERS AND TOP EXECUTIVES	1,770	9.60	8
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.05	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	810	4.40	N/A
ACCOUNTANTS AND AUDITORS	140	0.76	27
ALL OTHER FINANCIAL SPECIALISTS	10	0.05	29
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	160	0.87	22
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	20	0.11	7
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.05	N/A
ALL OTHER ENG & RELATED TECHNICIAN & TECHNOL.	170	0.92	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.05	32
DESIGNERS, EXCEPT INTERIOR DESIGNERS	30	0.16	34
MERCHANDISE DISPLAYERS & WINDOW TRIMMERS	10	0.05	32
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	270	1.47	N/A
SALES AND RELATED OCCUPATIONS	7,380	40.04	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	70	0.38	23
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	80	0.43	46
SALESPERSONS, RETAIL	5,310	28.81	8
STOCK CLERKS, SALES FLOOR	910	4.94	20
CASHIERS	540	2.93	29
NEWS-STREET VENDOR,PHONE SOLICIT,DOOR TO DOOR	140	0.76	17
ALL OTHER SALES AND RELATED WORKERS	340	1.84	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	4,440	24.09	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	720	3.91	22
CREDIT AUTHORIZERS	30	0.16	N/A
ADJUSTMENT CLERKS	60	0.33	10
BILL AND ACCOUNT COLLECTORS	110	0.60	27
SECRETARIES	340	1.84	18
RECEPTIONIST AND INFORMATION CLERKS	120	0.65	33
TYPISTS	10	0.05	N/A
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	270	1.47	32
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	750	4.07	10
PAYROLL AND TIMEKEEPING CLERKS	10	0.05	11
GENERAL OFFICE CLERKS	880	4.77	11

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
FURNITURE AND HOME FURNISHING STORES
SIC = 57
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
BILLING, POSTING, CALCULATING MACH. OPERATORS	40	0.22	40
PERIPHERAL EDP EQUIPMENT OPERATORS	20	0.11	45
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.11	35
SWITCHBOARD OPERATORS	50	0.27	26
DISPATCHERS-EXCEPT POLICE, FIRE, AND AMBULANCE	80	0.43	N/A
STOCK CLERKS-STOCKROOM, WAREHOUSE STORAGE YARD	510	2.77	18
ORDER FILLERS, WHOLESALE AND RETAIL SALES	40	0.22	29
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	210	1.14	28
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	70	0.38	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	110	0.60	N/A
SERVICE OCCUPATIONS	120	0.65	N/A
JANITORS, CLEANERS, EXCEPT MAIDS, HOUSE CLEANERS	80	0.43	27
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	40	0.22	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,660	19.86	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	140	0.76	19
MAINTENANCE REPAIRERS, GENERAL UTILITY	70	0.38	35
DATA PROCESSING EQUIPMENT REPAIRERS	30	0.16	N/A
ELECTRONIC HOME ENTERTAINMENT EQUIP REPAIRERS	400	2.17	38
ELECTRIC HOME APPL. & POWER TOOL REPAIRERS	600	3.26	19
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	270	1.47	N/A
FURNITURE FINISHERS	130	0.71	21
UPHOLSTERERS	10	0.05	45
ALL OTHER PRECISION WORKERS	50	0.27	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	60	0.33	N/A
ALL OTHER HAND WORKERS	130	0.71	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	300	1.63	49
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	770	4.18	16
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	480	2.60	17
HAND PACKERS AND PACKAGERS	20	0.11	46
ALL OTHER HELPERS, LABORERS, MAT'L MOVERS HAND	20	0.11	N/A

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
FURNITURE & HOME FURNISHINGS STORES
SIC = 571
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	10,810	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,180	10.92	N/A
FINANCIAL MANAGERS	10	0.09	27
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	10	0.09	40
PURCHASING MANAGERS	90	0.83	33
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	20	0.19	47
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	10	0.09	39
GENERAL MANAGERS AND TOP EXECUTIVES	1,030	9.53	9
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.09	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	540	5.00	N/A
ACCOUNTANTS AND AUDITORS	90	0.83	30
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	140	1.30	24
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.09	28
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.09	37
COMPUTER PROGRAMMERS	10	0.09	40
DESIGNERS, EXCEPT INTERIOR DESIGNERS	30	0.28	34
INTERIOR DESIGNERS	240	2.22	38
MERCHANDISE DISPLAYERS & WINDOW TRIMMERS	10	0.09	37
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	10	0.09	N/A
SALES AND RELATED OCCUPATIONS	4,180	38.67	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	50	0.46	30
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	50	0.46	42
SALESPERSONS, RETAIL	3,080	28.49	8
STOCK CLERKS, SALES FLOOR	660	6.11	22
CASHIERS	270	2.50	25
ALL OTHER SALES AND RELATED WORKERS	80	0.74	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	2,830	26.18	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	360	3.33	16
ADJUSTMENT CLERKS	30	0.28	25
SECRETARIES	170	1.57	24
RECEPTIONIST AND INFORMATION CLERKS	60	0.56	43
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	150	1.39	47
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	530	4.90	12
PAYROLL AND TIMEKEEPING CLERKS	10	0.09	12
GENERAL OFFICE CLERKS	720	6.66	11
BILLING, POSTING, CALCULATING MACH. OPERATORS	30	0.28	42
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.19	36

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
FURNITURE & HOME FURNISHINGS STORES
SIC = 571
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SWITCHBOARD OPERATORS	30	0.28	25
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	400	3.70	22
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	180	1.67	33
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	70	0.65	41
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	90	0.83	N/A
SERVICE OCCUPATIONS	70	0.65	N/A
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	60	0.56	32
ALL OTHER SERVICE WORKERS	10	0.09	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,020	18.69	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	40	0.37	46
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	230	2.13	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	170	1.57	N/A
FURNITURE FINISHERS	130	1.20	21
UPHOLSTERERS	10	0.09	45
ALL OTHER PRECISION WORKERS	50	0.46	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	60	0.56	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	470	4.35	18
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	420	3.89	18
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	440	4.07	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
HOUSEHOLD APPLIANCE STORES
SIC = 572
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	2,390	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	200	8.37	N/A
FINANCIAL MANAGERS	10	0.42	N/A
PURCHASING MANAGERS	30	1.26	33
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	10	0.42	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	140	5.86	13
ALL OTHER MANAGERS AND ADMINISTRATORS	**	0.00	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	50	2.09	N/A
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.42	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	40	1.67	N/A
SALES AND RELATED OCCUPATIONS	510	21.34	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	20	0.84	30
SALESPERSONS, RETAIL	270	11.30	18
CASHIERS	40	1.67	33
NEWS-STREET VENDOR,PHONE SOLICIT,DOOR TO DOOR	140	5.86	17
ALL OTHER SALES AND RELATED WORKERS	50	2.09	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	810	33.89	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	70	2.93	19
CREDIT AUTHORIZERS	30	1.26	N/A
ADJUSTMENT CLERKS	40	1.67	N/A
BILL AND ACCOUNT COLLECTORS	50	2.09	3
SECRETARIES	60	2.51	22
RECEPTIONIST AND INFORMATION CLERKS	20	0.84	29
TYPISTS	10	0.42	N/A
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	130	5.44	40
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	130	5.44	12
PERIPHERAL EDP EQUIPMENT OPERATORS	10	0.42	N/A
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	80	3.35	N/A
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	70	2.93	19
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	20	0.84	23
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	30	1.26	N/A
SERVICE OCCUPATIONS	20	0.84	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	810	33.89	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	70	2.93	20
ELECTRONIC HOME ENTERTAINMENT EQUIP REPAIRERS	40	1.67	47
ELECTRIC HOME APPL. & POWER TOOL REPAIRERS	400	16.74	14
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	100	4.18	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.42	20
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	50	2.09	38
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	30	1.26	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
RADIO, TELEVISION, AND MISCELLANEOUS STORES
SIC = 573
REFERENCE DATE JUNE, 1985

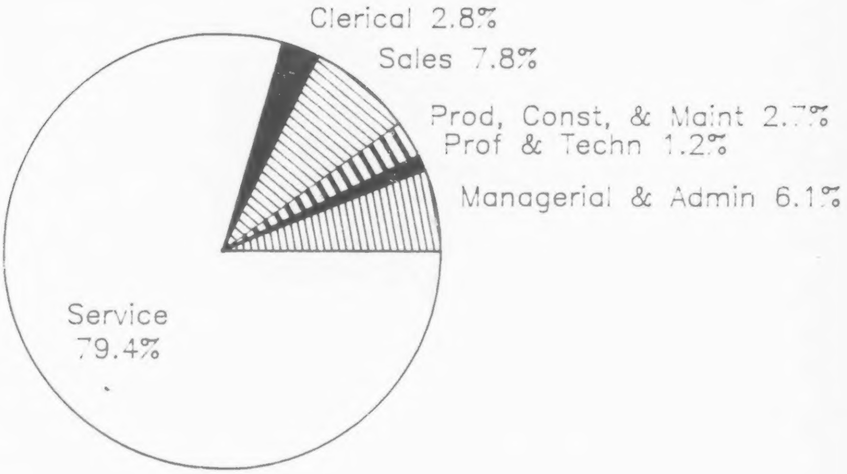
OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	5,230	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	640	12.24	N/A
GENERAL MANAGERS AND TOP EXECUTIVES	600	11.47	17
ALL OTHER MANAGERS AND ADMINISTRATORS	40	0.76	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	230	4.40	N/A
ALL OTHER FINANCIAL SPECIALISTS	40	0.76	N/A
PERSONNEL, TRAINING, & LABOR RELATIONS SPEC	10	0.19	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.19	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	170	3.25	N/A
SALES AND RELATED OCCUPATIONS	2,690	51.43	N/A
SALES REPS, SCIENTIFIC PROD & SVCS-EXC RETAIL	80	1.53	46
SALESPERSONS, RETAIL	1,970	37.67	18
ALL OTHER SALES AND RELATED WORKERS	650	12.43	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	810	15.49	N/A
SECRETARIES	120	2.29	38
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	90	1.72	41
GENERAL OFFICE CLERKS	80	1.53	47
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	50	0.96	36
ORDER FILLERS, WHOLESALE AND RETAIL SALES	20	0.38	N/A
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	10	0.19	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	440	8.41	N/A
SERVICE OCCUPATIONS	40	0.76	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	830	15.87	N/A
SUPERVISORS-MECHANICS, INSTALLERS, REPAIRERS	20	0.38	46
ELECTRONIC HOME ENTERTAINMENT EQUIP REPAIRERS	360	6.88	42
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	260	4.97	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	190	3.63	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Eating and Drinking Places (SIC 58)

Distribution of Employment by Major Occupation Category



Ranked Occupational Employment

1.	Waiters and Waitresses	52810
2.	All Other Food Service Workers	31330
3.	Cooks, Restaurant	11930
4.	Food Preparation Workers	11890
5.	Bartenders	11010
6.	Cooks, Specialty Fast Food	10530
7.	General Managers and Top Executives	6420
8.	Hosts, Hostesses - Restaurant, Lounge, Coffee Shop	5470
9.	Dining Room, Cafeteria Attendants, Bar Helpers	4820
10.	Food Service and Lodging Managers	4330

SIC 58

This major group includes retail establishments selling prepared foods and drinks for consumption on the premises, and also lunch counters, refreshment stands and fast food restaurants selling prepared foods and drinks for immediate consumption. Eating and drinking places employ twice as many people as any other major group in the trade division. Since the last survey in 1982, the industry has grown by 26,630, or 16.8, percent from a level of 158,690. The number of establishments grew by 7 percent over the approximate 9,000 total in 1982, with the average number of persons per unit increasing from 17 to 19.

Nearly 80 percent of industry employment is in service occupations. Part time workers represent about one-half of total employment in the group. Vacation resorts employ many of these workers on a seasonal basis. The widespread availability of part-time jobs that fit easily into people's schedules makes these occupations attractive to people who want a job as a source of immediate income rather than a career. Waiters and waitresses, the largest occupation in the industry, represent 28.7 percent of all workers. With the continued growth in fast food units, the short order cook has grown to 10,530 jobs, approaching the 11,900 level for the restaurant cook occupation.

The industry is projected to grow about 30 percent through the mid-1990s. New jobs will be created as additional restaurants open in response to increased spending for food and beverages outside the home. Higher average incomes and more leisure time will enable people to dine out and take vacations more often.

# TABLE
# OCCUPATIONS OF EMPLOYEES
# EATING AND DRINKING PLACES
SIC = 58
REFERENCE DATE JUNE, 1985

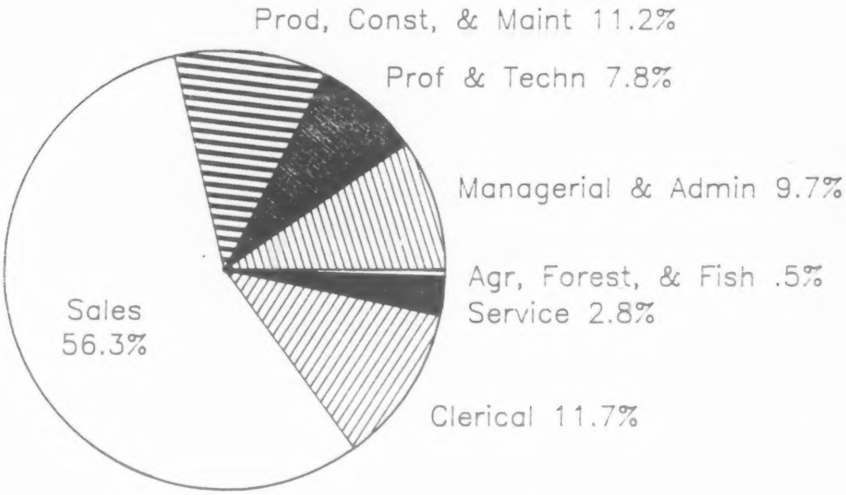
OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	184,010	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	11,220	6.10	N/A
FOOD SERVICE AND LODGING MANAGERS	4,330	2.35	21
GENERAL MANAGERS AND TOP EXECUTIVES	6,420	3.49	20
ALL OTHER MANAGERS AND ADMINISTRATORS	480	0.26	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	2,100	1.14	N/A
ALL OTHER FINANCIAL SPECIALISTS	1,060	0.58	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	470	0.26	N/A
SALES AND RELATED OCCUPATIONS	14,360	7.80	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	5,190	2.82	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	1,670	0.91	21
ALL OTHER OFFICE MACHINE OPERATORS	70	0.04	N/A
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	50	0.03	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	3,390	1.84	N/A
SERVICE OCCUPATIONS	146,110	79.40	N/A
SUPERVISORS & MANAGER/SUPERVISORS-SERVICE	4,020	2.18	20
ALL OTHER PROTECTIVE SERVICE WORKERS	840	0.46	N/A
HOSTS,HOSTESSES-RESTAURANT,LOUNGE,COFFEE SHOP	5,470	2.97	22
BARTENDERS	11,010	5.98	25
WAITERS AND WAITRESSES	52,810	28.70	14
DINING ROOM, CAFETERIA ATTENDANTS,BAR HELPERS	4,820	2.62	28
COOKS, RESTAURANT	11,930	6.48	19
COOKS, SPECIALTY FAST FOOD	10,530	5.72	34
FOOD PREPARATION WORKERS	11,890	6.46	25
ALL OTHER FOOD SERVICE WORKERS	31,330	17.03	N/A
ALL OTHER CLEANING & BUILDING SERVICE WORKERS	1,460	0.79	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	5,030	2.73	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

Miscellaneous Retail (SIC 59)

Distribution of Employment by Major Occupation Category



Ranked Occupational Employment

1.	Salespersons, Retail	20670
2.	Cashiers	12280
3.	Stock Clerks, Sales Floor	7380
4.	General Managers and Top Executives	5890
5.	Bookkeeping, Accounting, & Auditing Clerks	3080
6.	First Line Supervisors & Manager/Supvrs - Sales	2630
7.	Pharmacists	2560
8.	General Office Clerks	1920
9.	Heating, A/C, & Refrig. Mechanics & Installers	1330
10.	Truck Drivers, Light - Inc. Delivery & Route Workers	1320

SIC 59

This major group includes retail establishments that fall into the following categories: drug stores, liquor stores, used merchandise stores, nonstore retailers, fuel and ice dealers, miscellaneous shopping goods stores, florists, cigar stores and stands. Employment for this industrial group has increased 20.1 percent from its 1982 level of 64,680. SIC 594, miscellaneous shopping goods stores, which includes sporting goods stores, book stores, stationery stores, jewelry stores, toy stores, camera stores, and gift stores, comprises the largest share of employment at 32.0 percent.

Sales and related occupations comprise the largest share of all the occupational groups, 56.3 percent. Two occupations within the group, sales persons and cashiers, maintain 42.7 percent of all occupations in the industry.

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS RETAIL
SIC = 59
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	77,210	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	7,470	9.67	N/A
FINANCIAL MANAGERS	70	0.09	28
PERSONNEL,TRAINING, AND LABOR RELATIONS MGRS.	40	0.05	47
PURCHASING MANAGERS	980	1.27	15
MARKETING,ADVERTISING,PUBLIC RELATIONS MGRS.	90	0.12	38
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	40	0.05	28
FOOD SERVICE AND LODGING MANAGERS	210	0.27	44
GENERAL MANAGERS AND TOP EXECUTIVES	5,890	7.63	5
ALL OTHER MANAGERS AND ADMINISTRATORS	160	0.21	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	6,070	7.86	N/A
ACCOUNTANTS AND AUDITORS	500	0.65	18
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	800	1.04	22
ALL OTHER MANAGEMENT SUPPORT WORKERS	100	0.13	N/A
PHARMACISTS	2,560	3.32	7
DESIGNERS, EXCEPT INTERIOR DESIGNERS	940	1.22	26
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	1,180	1.53	N/A
SALES AND RELATED OCCUPATIONS	43,460	56.29	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	2,630	3.41	12
SALESPERSONS, RETAIL	20,670	26.77	8
STOCK CLERKS, SALES FLOOR	7,380	9.56	11
CASHIERS	12,280	15.90	9
ALL OTHER SALES AND RELATED WORKERS	520	0.67	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	9,020	11.68	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	150	0.19	30
BILL AND ACCOUNT COLLECTORS	20	0.03	41
SECRETARIES	890	1.15	16
RECEPTIONIST AND INFORMATION CLERKS	40	0.05	28
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	370	0.48	27
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	3,080	3.99	8
BILLING, COST AND RATE CLERKS	370	0.48	47
GENERAL OFFICE CLERKS	1,920	2.49	13
COMPUTER OPERATORS, EXC. PERIPHERAL EQUIPMENT	60	0.08	37
SWITCHBOARD OPERATORS	30	0.04	43
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	20	0.03	44
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	780	1.01	22
ORDER FILLERS, WHOLESALE AND RETAIL SALES	640	0.83	26
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	350	0.45	29
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	30	0.04	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	260	0.34	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS RETAIL
SIC = 59
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
SERVICE OCCUPATIONS	2,180	2.82	N/A
DETECTIVES AND INVESTIGATORS, EXCEPT PUBLIC	10	0.01	47
COUNTER ATTENDANTS-LUNCHROOM,COFFEE SHOP, ETC	350	0.45	38
FOOD PREPARATION WORKERS	280	0.36	25
ALL OTHER FOOD SERVICE WORKERS	630	0.82	N/A
PHARMACY ASSISTANTS	580	0.75	17
JANITORS,CLEANERS,EXCEPT MAIDS,HOUSE CLEANERS	220	0.28	33
ALL OTHER SERVICE WORKERS	120	0.16	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	370	0.48	N/A
GRADERS AND SORTERS, AGRICULTURAL PRODUCTS	120	0.16	N/A
ALL OTHER AGRIC,FOR,FISH, & RELATED WORKERS	250	0.32	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	8,640	11.19	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	60	0.08	33
AUTOMOTIVE MECHANICS	100	0.13	35
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	60	0.08	40
ELECTRIC HOME APPL. & POWER TOOL REPAIRERS	30	0.04	30
HEATING, A/C & REFRIG MECHANICS & INSTALLERS	1,330	1.72	12
COIN AND VENDING MACHINE SERVICER & REPAIRERS	330	0.43	29
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	810	1.05	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	150	0.19	N/A
ALL OTHER PRECISION WORKERS	590	0.76	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	370	0.48	N/A
ALL OTHER HAND WORKERS	500	0.65	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	1,300	1.68	13
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	1,320	1.71	15
DRIVER/SALES WORKERS	530	0.69	26
ALL OTHER TRANSPORTATION AND RELATED WORKERS	190	0.25	N/A
MECHANIC AND REPAIRER HELPERS	10	0.01	48
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	770	1.00	33
HAND PACKERS AND PACKAGERS	90	0.12	39
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	110	0.14	N/A

---

1 - Summed parts may not equal totals because of rounding.

** - Employment less than 10

N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
DRUG STORES AND PROPRIETARY STORES
SIC = 591
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	17,330	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,010	5.83	N/A
FINANCIAL MANAGERS	10	0.06	25
PURCHASING MANAGERS	110	0.63	37
GENERAL MANAGERS AND TOP EXECUTIVES	850	4.90	12
ALL OTHER MANAGERS AND ADMINISTRATORS	50	0.29	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	2,590	14.95	N/A
ACCOUNTANTS AND AUDITORS	70	0.40	39
PHARMACISTS	2,460	14.20	7
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	50	0.29	N/A
SALES AND RELATED OCCUPATIONS	12,120	69.94	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	500	2.89	14
SALESPERSONS, RETAIL	2,920	16.85	16
STOCK CLERKS, SALES FLOOR	2,080	12.00	18
CASHIERS	6,610	38.14	9
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	820	4.73	N/A
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	430	2.48	18
GENERAL OFFICE CLERKS	100	0.58	36
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	40	0.23	42
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	250	1.44	N/A
SERVICE OCCUPATIONS	650	3.75	N/A
PHARMACY ASSISTANTS	570	3.29	18
ALL OTHER SERVICE WORKERS	80	0.46	N/A
TRANS & MATERIAL MOVING MACH & VEHICLE OPER	140	0.81	N/A
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	10	0.06	35
ALL OTHER MOTOR VEHICLE OPERATORS	70	0.40	N/A
HAND PACKERS AND PACKAGERS	60	0.35	43

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
LIQUOR STORES
SIC = 592
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	9,670	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,240	12.82	N/A
PURCHASING MANAGERS	210	2.17	28
GENERAL MANAGERS AND TOP EXECUTIVES	1,010	10.44	9
ALL OTHER MANAGERS AND ADMINISTRATORS	20	0.21	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	180	1.86	N/A
ACCOUNTANTS AND AUDITORS	80	0.83	40
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	100	1.03	49
SALES AND RELATED OCCUPATIONS	7,430	76.84	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	230	2.38	26
SALESPERSONS, RETAIL	2,420	25.03	17
STOCK CLERKS, SALES FLOOR	2,670	27.61	11
CASHIERS	2,100	21.72	13
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	500	5.17	N/A
SECRETARIES	50	0.52	49
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	210	2.17	23
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	190	1.96	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	50	0.52	N/A
SERVICE OCCUPATIONS	220	2.28	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	110	1.14	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
USED MERCHANDISE STORES
SIC = 593
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	1,880	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	230	12.23	N/A
PURCHASING MANAGERS	30	1.60	31
GENERAL MANAGERS AND TOP EXECUTIVES	200	10.64	12
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	70	3.72	N/A
ACCOUNTANTS AND AUDITORS	10	0.53	29
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	20	1.06	38
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	40	2.13	N/A
SALES AND RELATED OCCUPATIONS	770	40.96	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	40	2.13	28
SALESPERSONS, RETAIL	550	29.26	15
STOCK CLERKS, SALES FLOOR	110	5.85	30
CASHIERS	70	3.72	35
ALL OTHER SALES AND RELATED WORKERS	**	0.00	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	270	14.36	N/A
SECRETARIES	50	2.66	26
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	70	3.72	17
GENERAL OFFICE CLERKS	50	2.66	25
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	70	3.72	48
TRAFFIC, SHIPPING, AND RECEIVING CLERKS	10	0.53	38
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.53	N/A
SERVICE OCCUPATIONS	10	0.53	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	530	28.19	N/A
AUTOMOTIVE MECHANICS	70	3.72	36
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	10	0.53	48
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	30	1.60	N/A
ALL OTHER PRECISION WORKERS	40	2.13	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	30	1.60	32
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	80	4.26	26
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	80	4.26	25
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	190	10.11	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
MISCELLANEOUS SHOPPING GOODS STORES
SIC = 594
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	24,720	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	2,290	9.26	N/A
FINANCIAL MANAGERS	30	0.12	49
PURCHASING MANAGERS	390	1.58	29
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	20	0.08	45
GENERAL MANAGERS AND TOP EXECUTIVES	1,690	6.84	15
ALL OTHER MANAGERS AND ADMINISTRATORS	160	0.65	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	1,400	5.66	N/A
ACCOUNTANTS AND AUDITORS	230	0.93	33
WHOLESALE & RETAIL BUYERS EXCEPT FARM PRODUCT	450	1.82	29
ALL OTHER MANAGEMENT SUPPORT WORKERS	50	0.20	N/A
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	670	2.71	N/A
SALES AND RELATED OCCUPATIONS	15,550	62.90	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	940	3.80	27
SALESPERSONS, RETAIL	10,330	41.79	13
STOCK CLERKS, SALES FLOOR	1,730	7.00	36
CASHIERS	2,450	9.91	38
ALL OTHER SALES AND RELATED WORKERS	90	0.36	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	3,220	13.03	N/A
SECRETARIES	310	1.25	38
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	1,180	4.77	18
GENERAL OFFICE CLERKS	580	2.35	33
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	590	2.39	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	560	2.27	N/A
SERVICE OCCUPATIONS	70	0.28	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	2,180	8.82	N/A
OFFICE MACHINE AND CASH REGISTER SERVICERS	170	0.69	N/A
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	380	1.54	N/A
ALL OTHER PRECISION WORKERS	370	1.50	N/A
ALL OTHER MACHINE OPERATORS AND TENDERS	290	1.17	N/A
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	970	3.92	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
NONSTORE RETAILERS
SIC = 596
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	6,130	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	640	10.44	N/A
FINANCIAL MANAGERS	10	0.16	35
GENERAL MANAGERS AND TOP EXECUTIVES	370	6.04	10
ALL OTHER MANAGERS AND ADMINISTRATORS	260	4.24	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	90	1.47	N/A
SALES AND RELATED OCCUPATIONS	2,030	33.12	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	170	2.77	28
SALESPERSONS, RETAIL	1,210	19.74	13
STOCK CLERKS, SALES FLOOR	50	0.82	30
CASHIERS	320	5.22	22
ALL OTHER SALES AND RELATED WORKERS	280	4.57	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,200	19.58	N/A
SECRETARIES	70	1.14	22
RECEPTIONIST AND INFORMATION CLERKS	10	0.16	28
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	160	2.61	17
GENERAL OFFICE CLERKS	230	3.75	19
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	130	2.12	29
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	360	5.87	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	250	4.08	N/A
SERVICE OCCUPATIONS	1,070	17.46	N/A
COUNTER ATTENDANTS-LUNCHROOM,COFFEE SHOP, ETC	280	4.57	33
FOOD PREPARATION WORKERS	270	4.40	26
ALL OTHER FOOD SERVICE WORKERS	440	7.18	N/A
ALL OTHER SERVICE WORKERS	80	1.31	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,100	17.94	N/A
ELECTRIC HOME APPL. & POWER TOOL REPAIRERS	30	0.49	30
COIN AND VENDING MACHINE SERVICER & REPAIRERS	330	5.38	29
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	70	1.14	N/A
ALL OTHER MACHINE SETTERS & SET-UP OPERATORS	90	1.47	N/A
DRIVER/SALES WORKERS	330	5.38	27
ALL OTHER HELPERS,LABORERS,MAT'L MOVERS HAND	260	4.24	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
FUEL AND ICE DEALERS
SIC = 598
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	6,510	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	680	10.45	N/A
PURCHASING MANAGERS	50	0.77	40
GENERAL MANAGERS AND TOP EXECUTIVES	630	9.68	12
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	60	0.92	N/A
ACCOUNTANTS AND AUDITORS	50	0.77	28
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	20	0.31	N/A
SALES AND RELATED OCCUPATIONS	550	8.45	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	240	3.69	34
SALESPERSONS, RETAIL	160	2.46	23
ALL OTHER SALES AND RELATED WORKERS	160	2.46	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,670	25.65	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.15	47
BILL AND ACCOUNT COLLECTORS	20	0.31	47
SECRETARIES	200	3.07	27
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	90	1.38	37
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	530	8.14	15
BILLING, COST AND RATE CLERKS	110	1.69	33
GENERAL OFFICE CLERKS	580	8.91	18
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.15	28
DISPATCHERS-EXCEPT POLICE,FIRE, AND AMBULANCE	20	0.31	49
ALL OTHER MATERIAL RECORDING, SCHEDULING, ETC	100	1.54	N/A
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	10	0.15	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	3,550	54.53	N/A
BUS,TRUCK MECHANICS,DIESEL ENGINE SPECIALISTS	50	0.77	47
HEATING, A/C & REFRIG MECHANICS & INSTALLERS	1,330	20.43	12
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	100	1.54	N/A
TRUCK DRIVERS, HEAVY OR TRACTOR TRAILER	1,200	18.43	13
TRUCK DRIVERS, LIGHT-INC DEL & ROUTE WORKERS	520	7.99	24
ALL OTHER TRANSPORTATION AND RELATED WORKERS	190	2.92	N/A
FREIGHT, STOCK, AND MATERIAL MOVERS, HAND	150	2.30	47

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available

TABLE
OCCUPATIONS OF EMPLOYEES
RETAIL STORES NEC
SIC = 599
REFERENCE DATE JUNE, 1985

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER[1]	PERCENT OF TOTAL	RELATIVE ERROR %
TOTAL INDUSTRY EMPLOYMENT	10,980	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1,380	12.57	N/A
FINANCIAL MANAGERS	10	0.09	33
PURCHASING MANAGERS	160	1.46	41
COMMUNICATIONS TRANS & UTIL OPERATIONS MGRS	10	0.09	38
GENERAL MANAGERS AND TOP EXECUTIVES	1,150	10.47	10
ALL OTHER MANAGERS AND ADMINISTRATORS	50	0.46	N/A
PROFESSIONAL,PARAPROFESSIONAL,TECH OCCUPATION	1,690	15.39	N/A
ACCOUNTANTS AND AUDITORS	50	0.46	37
ALL OTHER MANAGEMENT SUPPORT WORKERS	160	1.46	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.09	N/A
ALL OTHER HEALTH PROF., PARAPROF., & TECHS.	510	4.64	N/A
DESIGNERS, EXCEPT INTERIOR DESIGNERS	920	8.38	26
ALL OTHER PROFESSIONAL, PARAPROF.,&TECHNICAL	40	0.36	N/A
SALES AND RELATED OCCUPATIONS	5,010	45.63	N/A
FIRST LINE SUPERVISORS & MANAGER/SUPVS-SALES	510	4.64	20
OTHER SALES REPRESENTATIVES, EXCEPT RETAIL	10	0.09	17
SALESPERSONS, RETAIL	3,070	27.96	13
STOCK CLERKS, SALES FLOOR	720	6.56	38
CASHIERS	690	6.28	35
ALL OTHER SALES AND RELATED WORKERS	10	0.09	N/A
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	1,340	12.20	N/A
SUPERVISOR & MGR/SUPVR-CLERICAL/ADMIN SUPPORT	10	0.09	8
ADJUSTMENT CLERKS	10	0.09	N/A
BILL AND ACCOUNT COLLECTORS	10	0.09	N/A
SECRETARIES	130	1.18	31
RECEPTIONIST AND INFORMATION CLERKS	10	0.09	20
ORDER CLERKS-MATERIALS, MERCHANDISE, SERVICE	50	0.46	44
BOOKKEEPING, ACCOUNTING, & AUDITING CLERKS	490	4.46	17
GENERAL OFFICE CLERKS	340	3.10	32
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.09	45
STOCK CLERKS-STOCKROOM,WAREHOUSE STORAGE YARD	130	1.18	37
ORDER FILLERS, WHOLESALE AND RETAIL SALES	80	0.73	33
ALL OTHER CLERICAL & ADMIN SUPPORT WORKERS	90	0.82	N/A
SERVICE OCCUPATIONS	160	1.46	N/A
AGRICULTURAL,FORESTRY,FISHING,RELATED OCCUP	250	2.28	N/A
PRODUCTION, CONSTRUCTION, & MAINTENANCE OCCS.	1,160	10.56	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.09	28
ALL OTHER MECHANICS, INSTALLERS, & REPAIRERS	130	1.18	N/A
ALL OTHER CONSTRUCTION TRADES WORKERS	150	1.37	N/A

---

1 - Summed parts may not equal totals because of rounding.
** - Employment less than 10
N/A - Relative Error Not Available